



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>

LB

2371

G73

A 441845

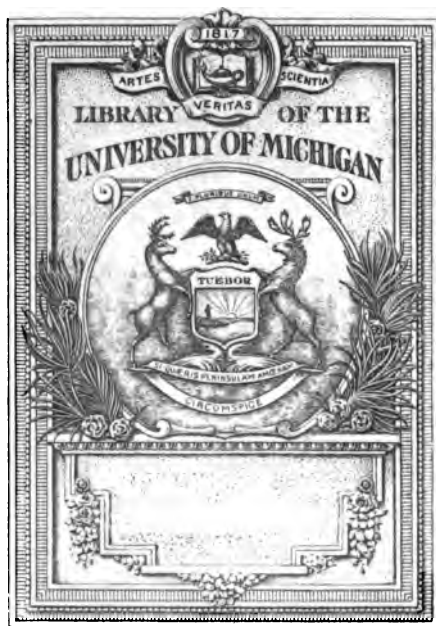
Graduate

Handbook

1899

Lippincott Press, Philadelphia

Digitized by Google



THE
GRADUATE HANDBOOK, No. 7

1899

114

THE ORGAN OF THE FEDERATION OF
GRADUATE CLUBS

BARCLAY W. BRADLEY, University of Pennsylvania,
Editor-in-Chief

ASSISTANT EDITORS

Barnard, ALINE C. STRATFORD
Brown, ALLAN B. BICKNELL
Bryn Mawr, CARRIE A. HARPER
California, M. NINA MARTIN
Chicago, HENRY M. ADKINSON
Clark, LINDSAY DUNCAN
Columbia, JOHN R. NEAL
Columbian, MARCUS W. LYON, JR.
Cornell, C. ROBERT GASTON
Harvard, C. R. FISH
Michigan, HENRY N. HESS

Minnesota, DAVID F. SWENSON
Missouri, MINNIE ORGAN
New York, LESLIE J. TOMPKINS
Pennsylvania, J. VINCENT CROWNE
Princeton, PHILIP ELY ROBINSON
Radcliffe, CATHARINE BIRD RUNKLE
Stanford, HELENE BORGMAN
Vanderbilt, C. R. BASKERVILL
Wellesley, FRANCES L. ROGERS
Western Reserve, A. H. CARPENTER
Wisconsin, M. M. BEDDALL

Yale, JAY G. ELDRIDGE

PHILADELPHIA
PRINTED BY J. B. LIPPINCOTT COMPANY

1899

OFFICERS OF THE FEDERATION,

1899.

LB
2371
673

President.

WENDELL M. STRONG, YALE,
307 Welch Hall, New Haven, Conn.

First Vice-President, EMILY FOGG, BRYN MAWR.

Second Vice-President, ALLAN H. WILLET, COLUMBIA.

Third Vice-President, HENRY BARRETT LEARNED, HARVARD.

Corresponding Secretary.

ELIZABETH FAULKNER, CHICAGO,
98 Oakwood Avenue, Chicago, Ill.

Recording Secretary.

C. ROBERT GASTON, CORNELL,
3 Oak Avenue, Ithaca, N. Y.

Treasurer.

W. J. TRUESDALE, WESTERN RESERVE,
257 Kennard Street, Cleveland, Ohio.

Officers in 1896.

Pres., FREDERIC L. LUQUER, Columbia.

1st V.-Pres., ELLIS A. SCHNABEL, Pennsylvania.

2d V.-Pres., JOHN F. BROWN, Cornell.

3d V.-Pres., KATE O. PETERSON, Radcliffe.

Cor. Sec., BERTHA HAVEN PUTNAM, Barnard.

Rec. Sec., BALTHASAR H. MEYER, Wisconsin.

Treas., EDMUND P. SHELDON, Minnesota.

Officers in 1897.

Pres., J. D. FORREST, Chicago.

1st V.-Pres., J. H. BOYNTON, Harvard.

2d V.-Pres., J. H. CLUTZ, Johns Hopkins.

3d V.-Pres., MARY KINGSBURY, Barnard.

Cor. Sec., MARY BARTOL, Pennsylvania.

Rec. Sec., H. E. BOLTON, Pennsylvania.

Treas., J. H. MACCRACKEN, New York.

Officers in 1898.

Pres., RAYMOND M. ALDEN, Pennsylvania.

1st V.-Pres., MABEL HURD, Barnard.

2d V.-Pres., DAVID H. BISHOP, Vanderbilt.

3d V.-Pres., E. ROBERTSON BUCKLEY, Wisconsin.

Cor. Sec., MARY BARTOL, Pennsylvania.

Rec. Sec., PERCIVAL HALL, Columbian.

Treas., HENRY LLOYD, Chicago.

PREFACE.

IN accordance with action taken at the Cambridge convention of the Federation of Graduate Clubs, the *Graduate Handbook Number Seven* contains almost in full the proceedings of that convention. It is regretted that, on account of the limit put upon the size of the book by the convention, it has been impossible to print more than brief abstracts of the very carefully prepared reports of the committees and officers. The writers must accept the apology of the editor for the manner in which their reports have been cut down. The entire text of the other papers and addresses delivered before the convention is printed, with the exception of four which were not written. The list of theses of those who received the doctor's degree in 1898 is classified this year by subjects; the officers of the graduate clubs and of the graduate schools, and a table for the ready comparison of graduate work and facilities, are given as in previous editions. The column in the table entitled "Special Facilities for Study and Research" is new. In its present form it undoubtedly does injustice to some institutions, but it is thought that after it has had time in which to develop, this column can be made of great value in showing to students what the resources of this country are in their respective lines of work, and where they are to be found, both inside and outside of educational institutions. The publication of the compendium of graduate courses has, for the present at least, been abandoned. This decision was made by the convention after hearing the report of a

very careful investigation of the subject by a special committee appointed at the convention of 1897. It was shown that the very limited number of copies of the *Handbook* sold did not warrant the continuance of such an expensive publication. In order to bring the book into the hands of a greater number of students, the convention further decided to distribute the *Handbook* for 1899 free among the members of the graduate clubs.

It is hoped that by the *Handbook* in this new form all graduate students will be brought to share in the work of the Federation, and that perhaps graduate instructors also will find some thoughts that will help them in advancing the standards of their own work. The editor wishes to suggest to the graduate clubs that they use the topics of the papers here presented for earnest discussion in their club meetings. The thoughts expressed in these papers should be the means of developing, and finally of crystallizing, the thought of all graduate students upon the same subjects.

2221 SPRING GARDEN STREET, PHILADELPHIA,

March 15, 1899.

TABLE OF CONTENTS.

	PAGE
Board of Assistant Editors	<i>Title page.</i>
Officers of the Federation	2
Editor's Preface	3
Committees for 1899	6
Proceedings of Fourth Annual Convention :	
List of Delegates to the Convention	7
Address of Welcome, President Eliot	8
Report of the President	9
Report of the Corresponding Secretary	13
Report of the Treasurer	13
Report of the Editor-in-Chief of the Handbook	14
Report of the Business Manager of the Handbook	14
Address of Professor John Williams White. Subject: "Graduate Instruction in the United States"	16
Report of the Committee on Migration	37
Report of the Committee on Major and Minor Subjects	40
Report of the Committee on Revision of the Handbook	43
Paper: "Specialized Scholarship <i>vs.</i> Preparation for Teaching as a Basis for Graduate Study," Mr. Joseph Parker Warren	46
Paper: "The Master's Degree: Is it Obsolete?" Miss Eleanor Olivia Brownell	55
Papers on Graduate Study in European Universities :	
England and France, Mr. C. H. C. Wright	58
Germany, Mr. Faulkland Lewis	60
Paper: "The Relation of Graduate to Undergraduate Courses," Miss Emily Fogg	61
Paper: "What Can the Federation do to unify the Interests of Local Clubs?" Dr. Wendell M. Strong	71
Report of the Committee on Thesis Subjects	73
Report of the Committee on Resolutions	74
Officers of the Graduate Clubs	75
Recipients of the Doctor's Degree in 1898, with Titles of Theses	79
Officers of the Graduate Schools	90
Table for the Ready Comparison of Graduate Schools	92

COMMITTEES FOR 1899.

Committee on Migration.

MR. ALLAN H. WILLETT, Columbia, *Chairman*,
Columbia University, New York City.
MR. C. ROBERT GASTON, Cornell.
MISS CARRIE A. HARPER, Bryn Mawr.

Committee on Thesis Subjects.

(To determine if it be feasible to prepare a list of theses in preparation each year in advance of their publication, to prevent conflict in thesis subjects.)

MISS ELIZABETH FAULKNER, Chicago, *Chairman*,
98 Oakwood Avenue, Chicago.
MR. EDMUND B. HUEY, Clark.
MR. BARCLAY W. BRADLEY, Pennsylvania.

Committee on Magazine.

(To investigate the feasibility of the publication of a periodical in the interests of graduate students.)

PROF. JOHN WILLIAMS WHITE, Harvard, *Chairman*,
18 Concord Avenue, Cambridge, Mass.
DR. OTIS W. CALDWELL, Chicago.
DR. WENDELL M. STRONG, Yale.
DR. C. A. DUNIWAY, Leland Stanford, Jr.
DR. RAYMOND M. ALDEN, Pennsylvania.

Committee on the Publication of Course Lists.

(To confer with publishers of educational periodicals and endeavor to have the graduate courses published.)

MR. JOHN H. MACCRACKEN, New York, *Chairman*,
University Heights, New York City.
MR. W. M. BURKE, Columbia.

Committee on the Relation of Graduate and Undergraduate Courses.

MISS EMILY FOGG, Bryn Mawr, *Chairman*,
Bryn Mawr College, Bryn Mawr, Pa.
MR. HENRY BARRETT LEARNED, Harvard.
MR. PAUL P. INGHAM, Michigan.

Committee on the Status of American Students in Foreign Universities.

(To confer with a committee of the faculty of the University of California.)

MR. O. F. LEWIS, Pennsylvania, *Chairman*,
Dormitory 341 E, University of Pennsylvania, Philadelphia.
MR. JOHN H. MACCRACKEN, New York.
MISS ELEANOR O. BROWNELL, Barnard.
MISS GRACE E. WILLIAMS, Barnard.
DR. WENDELL M. STRONG, Yale.

PROCEEDINGS
OF THE
FOURTH ANNUAL CONVENTION
OF THE
FEDERATION OF GRADUATE CLUBS

HELD AT

HARVARD UNIVERSITY, CAMBRIDGE, MASSACHUSETTS,
WEDNESDAY, THURSDAY, AND FRIDAY,
DECEMBER 28, 29, 30, 1898.

THE Convention met at Cambridge by invitation of the Graduate Club of Harvard University, and the delegates were entertained as the guests of the Graduate Clubs of Harvard and Radcliffe.

The following list of delegates registered :

- BARNARD.—Eleanor Olivia Brownell, Grace S. Williams.
BROWN.—Frederic Earle Whitaker, Allan Buell Bicknell.
BRYN MAWR.—Emily Fogg, Carrie A. Harper.
CHICAGO.—Otis W. Caldwell.
CLARK.—Edmund B. Huey, H. C. Moreno.
COLUMBIA.—W. M. Burke, Emil A. C. Keppler, Allan H. Willett.
COLUMBIAN.—Percival Hall.
CORNELL.—C. Robert Gaston.
HARVARD.—George Wyllys Benedict, William E. McElfresh, Henry Barrett Learned, Joseph Parker Warren.
LELAND STANFORD, JR.—Daniel Coolidge.
MICHIGAN.—Paul P. Ingham.
NEW YORK.—John Henry MacCracken.
PENNSYLVANIA.—Mary Bartol, Faulkland Lewis, Barclay W. Bradley.
RADCLIFFE.—Lucy A. Paton, Mary E. Parker.
WELLESLEY.—Frances L. Rogers.
WESTERN RESERVE.—W. J. Truesdale.
YALE.—Wendell M. Strong.

The Convention assembled in Harvard Hall, and was called to order by President Alden.

Address of Welcome.—President Eliot, of Harvard University, gave the delegates a hearty greeting, and welcomed the Federation to Harvard. He referred to the age of the building in which they were assembled—the third Harvard Hall—and to the value of good traditions and interesting historical associations at a seat of learning. He commended the work the Federation was doing, and said that the most interesting word in the title of the organization was the word “Federation,”—a word which implied that all institutions of the higher education had a common cause to promote. In the early history of the American colleges this fact had often been lost sight of; for colleges had been founded one after another for denominational objects, as protest or bulwark against the tenets or practices of some other institutions. Thus, Yale was in part founded to resist the latitudinarianism of Harvard. Amherst was a protest against the liberalism of Williams on the one hand and Harvard on the other; and to this day many of the denominational colleges of the West protest earnestly against the State universities. But, on the whole, during the last twenty years the American institutions of higher education have come to see that their cause is really a common cause; and that their strength before the community lies in union. This is particularly true of the graduate schools which have been developed within this period.

He touched upon some of the subjects that had been selected for discussion. Speaking of the migration of students from one university to another, he expressed the opinion that its influence went much deeper than the promotion of scholarship. He believed that the habitual migration of German students from one university to another had had much to do with the establishment of German unity; and that the real unity of any nation was effectually promoted by the residence of students from different parts of the country at one institution of learning, and the movement of students from one institution to another. In this connection he regretted an ancient superstition, which still lingered at Harvard and doubtless elsewhere,—the superstition that it was impossible to have genuine love for more than one institution of learning; the notion that, if a man loved Brown, it was impossible for him also to

love Yale ; or if he loved Yale, he must hate other colleges. It were as reasonable to suppose that, because a man loved his mother, he could not love his wife ; or because he loved his wife, he could not love his children. There is no incompatibility between the feelings of respect and affection for the college at which a young man took his A.B. and for the other institution at which he took his A.M., Ph.D., or M.D.

He said that thorough scholarship in some specialty was necessary for the teacher ; and that the graduate schools were chiefly places where men studied who proposed to be teachers ; but he thought that in the future there ought to be places of preparation for other professions,—for preparing well-trained men for the service of their country in journalism, letters, science, and legislation. They should be resorted to, also, by a class of young men and women who are to inherit competencies, and so can follow learned professions with the sole intent to thereby serve the community, and without any reference to earning a livelihood.

In conclusion, President Eliot said that he imagined that in the future climatic influences and beautiful surroundings would influence more than they had in the past the migration of students and the resort to universities. A university should have a beautiful site and beautiful grounds. For his part, he thought, after some observation of other lands and of the different regions of our own country, that the physical conditions in New England were as good as any in the world for intellectual purposes.

Report of the President,* Dr. R. M. Alden, of Pennsylvania.—There is evidence of greater general interest than ever before in the problems which this Federation has been in the habit of discussing. A number of the universities are considering such matters as the requirements for advanced degrees, the equalization of standards of admission to graduate work, the line of division between undergraduate and graduate courses, and similar matters,—all, it is believed, with a view to raising the general standard of their work.

I append a table based on statistics published in the last *Handbook*, and similar to that presented by the President a year ago, showing the distri-

* The reports of the officers and committees are not printed in full, Abstracts are made giving the more important parts of the original papers,

bution of graduate students among the several departments of study and the number of advanced degrees granted by universities represented in the Federation :

	1895-6	1896-7	1897-8
Language and Literature	1152	1720	1844
History and Social Science	902	1168	878
Philosophy and Pedagogy	817	904	738
Biology, Chemistry, and Geology	672	652	800
Mathematics and Physics	487	460	554
Total (including duplicate names)	4030	4904	4814
Total <i>actual</i> number of students reported by the universities	3204	2905	3439
Number of graduate students in nine leading universities	1919	2373
Number of doctor's degrees granted in nine leading universities	157	181
Total number of doctor's degrees granted by the universities in the Federation	209

The degree of Ph.D. has not been recently conferred *honoris causa* by any of the institutions represented in this body. The same cannot be said of the smaller colleges in all cases, but it is believed that the number of such degrees is steadily diminishing. I recommend that this convention take renewed action against the use of the degrees of Ph.D. and Sc.D. for honorary purposes.

In response to letters which I sent out to the college presidents and deans of graduate schools represented in the Federation asking for suggestions in regard to our work, many interesting and helpful letters have been received. I quote from some of these :

Dr. Matzke, of Leland Stanford University, said : "Your Federation, in my opinion, has been and can still continue to be useful in raising the standard of graduate work in America. Your *Handbook* has done much to set the different universities thinking, and I think it will tend to equalize the standard of requirements for the doctor's degree. Those schools which persist in giving it after a less number of years than others will suffer through the comparison which your *Handbook* makes possible."

Professor White, Dean of the University Faculty at Cornell, writes : "From my last report . . . you will note how suggestive the deliberations of the convention have been to us." In this annual report, addressed to the President of Cornell University, Dean White gave an abstract in considerable detail of the proceedings of our last convention.

President Eliot, of Harvard University, writes : "The Federation can do much to mitigate the absurd jealousies and contentions which have existed between American institutions of learning, contentions which had a natural rise many years ago in theological differences, but which now have become worse than absurd. Again, there are some points in connection with the administration of higher degrees in American universities to which the Federation might call the attention of university authorities, such as the inexpediency of giving the Ph.D. as an honorary degree and the propriety of requiring the printing of all theses for the doctorate. . . . I know that I have mentioned some points on which the Federation has already taken action. The mention will serve to show that I entirely sympathize with some of the work which the Federation has already done."

President Hall, of Clark University, and Dr. Nicholas Murray Butler, of Columbia, also commend the consideration of the requirement that all doctorate theses be printed. Dr. Butler also suggests as an important topic "the judgment to be passed, from a student point of view, upon the almost exclusive use of the lecture system in university work."

President Thomas, of Bryn Mawr, writes on the problem of distinguishing between graduate and undergraduate courses, and asks, "Would it not be possible for your organization to establish some commonly understood standard for the bachelor's degree, after which graduate work should begin?"

Professor Judson, Dean of the Faculties of Arts of the University of Chicago, proposes the consideration of "*culture degrees*" in the graduate school, to be parallel with the degrees now given which imply specialization. A similar point is raised by President Thwing, of Western Reserve University, in the question, "Is not the graduate school now becoming too thoroughly a school for specialists?"

A committee of the Faculty of the University of California, Professor A. O. Leuschner, Chairman, commends the consideration of the status of American graduate students in foreign universities, "with a view to securing proper credit, where it is not already given, for advanced work done at home at a university of high standing, and for the purpose of protecting the dignity of the degrees of Ph.D., etc., by discouraging foreign universities from conferring the doctor's degree on such American students as are not prepared to take the degree at home at a university of high standing."

Relative to present conditions in important German universities, the committee further says : "Counting the average undergraduate course to b

four years, and the post-graduate course to be three years, it is possible for an American to accomplish at Berlin in three years what would require seven years at home, while the American who has spent two years of graduate work at home and two years at Berlin, and thus can offer eight years of study after the High School, is rarely granted the privilege of an examination. . . . It is a matter of experience that American students have taken doctors' degrees in Germany within one year after receiving the bachelor's degree at home. . . . It is to be regretted that a degree thus easily earned at a German university is often more highly respected in this country than a corresponding degree faithfully earned at our best universities. . . . The committee holds that American students should not be admitted to examination for the doctor's degree in German universities, unless they hold a bachelor's degree from a reputable American college or university, nor unless they have completed three years of post-graduate work at German universities or at American universities of high standing."

To my own mind the most gratifying feature of these letters is the evidence they furnish of the spirit of co-operation existing among all interested in higher education, and of the fact that all are concerned with the same interests and the same problems.

I recommend the further consideration by this convention of a matter heretofore discussed, but never definitely acted upon,—viz., the possibility of assisting advanced students in the prevention of conflict in subjects for dissertations. If any plan can be agreed upon, it should be as free as possible from cumbersome machinery, and should not seek to make action compulsory on the part of any of those concerned. Some friendly co-operation in the matter of thesis subjects, if found practicable, would certainly be to the interest of all.

All suggestions which I have received relative to the continued publication of the *Handbook* of the Federation have been turned over to the special committee appointed a year ago to consider that subject. As hitherto published the *Handbook* has awakened both commendation and dissatisfaction. The report of the special committee will deserve our most careful attention.

Great difficulty has been felt by the officers in keeping up prompt communication with the local clubs. Our corresponding secretary has proved an indefatigable disturber of the peace of unresponsive officials; but it is impossible to stir up distant correspondents with certain effect, *by mail*. An organization whose members are widely separated, and which holds but one meeting in the year, cannot be kept in active health without prompt means of intercommunication. I cannot, therefore, urge too emphatically that local secretaries be appointed who will, as far as possible, be prompt and communicative, and that their proper addresses be always kept in the hands of the officers of the Federation.

The Executive Committee accepted with much pleasure the invitation of the Harvard Graduate Club to this place, and I am sure that it is with equal pleasure that we have come together at their call. To a body of students there can be no more fitting place of meeting than in the halls of an institution whose far-sighted founders, and progressive officers and teachers, have always kept it at once the oldest and the newest of American universities. The programme for the convention has been prepared in response to suggestions received from many sources. The attempt has been to cover a somewhat wider range of subjects than has been before previous conventions. In particular it was the desire of the Committee to have discussed certain problems relating to the *individual* work of graduate students, as well as the technical problems of graduate schools. To this end topics have been proposed of special interest to that large number of graduate students who purpose to give themselves to teaching. It is certain that we cannot afford to neglect the question of what we expect to do for the world by our chosen calling, nor of how the work now being done is to be brought to bear upon that expectation. There is a tendency to selfishness and egotism in scholarship which friendly conference should do much to clear away. I venture to propose for us this scholar's motto of St. Bernard of Clairvaux :—

"There are some who desire to know with the sole purpose that they *may* know, and it is curiosity ; and some who desire to know that they may be known, and it is base ambition ; and some who desire to know that they may sell their knowledge for wealth and honor, and it is base avarice ; but there are some, also, who desire to know that they may be edified, and it is prudence, and some who desire to know that they may help others, and it is charity."

Report of the Corresponding Secretary, Mary Bartol, of Pennsylvania.—Miss Bartol urged the clubs to keep in touch with the Federation by efficient secretaries who would reply promptly to letters addressed to them by the officers of the Federation. She recommended an amendment to the Constitution as follows : "Immediately upon election the Secretary of each club shall forward his name and address to the Corresponding Secretary of the Executive Committee of the Federation."

Report of the Treasurer.—

RECEIPTS.

Amount received from previous Treasurer	\$24.93
Dues for 1898 from 8 clubs	21.00
	<hr/>
	\$45.93

DISBURSEMENTS.

Miscellaneous expenses of officers (printing, postage, etc.)	\$15.93
Balance in hand	30.00
	<u>\$45.93</u>

Audited and found correct. Frederic Earle Whitaker, *Chairman*.

The Treasurer, Henry Lloyd, of Chicago, had enlisted in the army. During the latter part of the year the finances were in the hands of the Executive Committee. The supplementary account follows :

RECEIPTS.

From Treasurer's account as audited	\$30.00
Dues for 1898 from 6 clubs	10.00
	<u>\$40.00</u>

DISBURSEMENTS.

Expenses of officers and chairmen of committees (printing and postage)	\$29.52
Balance in the Treasury	10.48
	<u>\$40.00</u>

Approved by the Convention.

Report of the Editor-in-Chief of the Handbook, George Wyllys Benedict, of Harvard.—Mr. Benedict said that it was almost impossible to get the matter from the various institutions in time to have the *Handbook* appear before the close of the scholastic year. As some institutions do not announce their courses until late in the spring there is no way by which the *Handbook* can give sufficiently full announcements earlier than June. He doubted, however, if it would be of any considerable use to the students in selecting an institution even if it could appear earlier. As hitherto planned the *Handbook* has a value to a few persons for its statistics, but he did not think it possible that it can ever pay for itself from the sales to persons who buy it for use. As the organ of the Federation it finds a more or less fictitious demand, but, in his opinion, the general work of the Federation would be more widely influential if made public in some other form. The Federation should have an official publication, but it should have a wider circulation than the *Handbook* has had. The *Handbook* has been trying to do two things at once, and has made no conspicuous success of either.

Report of the Business Manager of the Handbook, Frederick A. Cleveland, of Chicago.—Mr. Cleveland stated that immediately after his appointment he began to arrange for as large a circulation of the *Handbook* as possible. Agents were secured in every university where they could be

found willing to act, on commission. Several thousand postal folders were used to obtain subscriptions. The book was advertised in the periodicals of the Johns Hopkins University and the University of Chicago. In this manner something over three hundred subscriptions were obtained before May 15, one hundred of which were obtained in Chicago. The book was delayed a month with the result that all chance of commencement sales was gone, and many of the subscriptions already obtained were lost.

That few books have been taken by members of clubs may indicate that there is little demand for the *Handbook* among graduate students. If the Federation has to rely on the patriotic instincts of its members, the *Handbook* had better be dropped, and the energies of the Federation devoted to the publishing of other forms of material. Unless a system can be devised compelling the institutions to have their copy in by April 15, and unless the clubs guarantee to take one-half as many copies of the *Handbook* as they have members, I see no way out of the difficulties.

As a result of the wide advertisement orders for the *Handbook* have been received from all parts of the country, and there have been a few foreign sales, such as Honolulu, Japan, England, etc.

The financial report of the Business Manager was as follows :

RECEIPTS.

Subscriptions paid by Graduate Clubs	\$458.00
Advertising, cash \$96.25, exchange ads. \$50.00	146.25
Old accounts and amount received from Mr. Duniway	110.10
Book sales	95.86
Total receipts	\$810.21

EXPENDITURES.

Miscellaneous expenses	\$94.92
Salaries of Editor-in-Chief and Business Manager	175.00
Manufacture of books	365.10
Exchange advertising	50.00
Amount to be paid to successor in office, on account of old business	110.10
Balance on the business of the current year	15.09
	\$810.21

The balance on account of the business of the current year is to be divided equally between the Federation and the Business Manager. There is in the hands of the Business Manager to be paid to his successor in office :

Amount received from old accounts	\$110.10
One-half of the balance on account of the business of the current year	7.55
	<u>\$117.65</u>

Audited and found correct. W. J. Truesdale.

In the evening the Convention met in the lecture-room of Fogg Art Museum, and was addressed by Professor White, of Harvard University, upon the subject, "Graduate Instruction in the United States." After the evening session the delegates were given a reception by the Dean of the Graduate School of Harvard University, Professor John H. Wright, and Mrs. Wright, at their residence.

GRADUATE INSTRUCTION IN THE UNITED STATES.

PROFESSOR JOHN WILLIAMS WHITE.

(Harvard University.)

MR. PRESIDENT AND DELEGATES OF THE FEDERATION OF GRADUATE CLUBS :

Instruction is now offered, at many American universities, to graduate students who desire to continue their pursuit of liberal studies. Training in the law, in medicine, and in theology is provided in schools separately organized ; the graduate school aims to furnish instruction in all other branches of human knowledge. The most important degrees conferred in this school are the degrees of Master of Arts or of Science and of Doctor of Philosophy or of Science. The Doctorate in Philosophy or in Science marks the completion of a protracted period of study of some single subject ; it is a high degree, intended to signify that the holder is competent to teach the branch that he has specially studied. The Doctorate in Philosophy was first conferred in this country at Yale University in 1861.

The development of graduate instruction in the United States is a remarkable phenomenon. It is recent, it has been rapid, it gives promise of indefinite growth ; its provision completes our educational system, and has made an American university possible.

It is not my purpose to treat this theme historically, but after a

rapid survey of the development of graduate instruction in this university, and a brief consideration of the relations that the graduate school sustains to the college in American universities in general, to pass to the discussion of certain questions of interest and importance to those most nearly concerned with this higher instruction.

Mr. Lowell, in one of his public addresses, says that three years before that time he had been one of those who gathered in the Sanders Theatre at Cambridge to commemorate the two hundred and fiftieth anniversary of a college founded to perpetuate living learning chiefly by the help of three dead languages,—the Hebrew, the Greek, and the Latin. “Of the men who stood about that fateful cradle swung from a bough of the primeval forest,” he continues, “there were probably few who believed that a book written in any living language could itself live.”

Such was the fostering care for the learned tongues of the pious founders of this college; and these languages, indeed, long held here royal and almost undisputed sway. But in 1824, one hundred and eighty-eight years after the founding of the college, Joseph Story presented a report to the overseers that ultimately brought about great changes. It recommended: “That the college studies shall be divided into two classes; the first embracing all such studies as shall be indispensable to obtain a degree; the second, such in respect to which the students may, to a limited extent, exercise a choice which they will pursue.”

This recommendation, which was adopted, marks the time of the introduction of the elective system of studies into colleges in the United States. Sixty years later it was brought to its logical conclusion in Harvard College by being extended to freshmen. The gradual extension of the elective system in this place prepared the way, easily and naturally, for the foundation of our Graduate School.

Resident graduates are not a new sort of man at Harvard University. They were here in the eighteenth century. Twelve are enrolled in the broadside of the college for 1811, which served the purpose of a catalogue, in honored place just after the names of the members of the faculty. Eleven were Bachelors of Arts, one a Master of Arts. Some of these early graduate students were Bache-

lors of Arts of other colleges. No special provision was made for their instruction.

In 1863 courses of University lectures were opened here as a means of advanced instruction in philosophy, history, and the humanities. It is a noteworthy fact that they were opened to women as well as to men. But after a trial of nine years it was confessed that they had distinctly failed to accomplish the purpose for which they had been established, and they were withdrawn. They had not induced Bachelors of Arts of the University to remain in Cambridge for purposes of systematic study, and they had not attracted to the University advanced students from other places.

In 1872 the University made the important announcement that it would confer the new degrees of Doctor of Philosophy and Doctor of Science, and that thereafter it would confer the degree of Master of Arts only upon examination. One year's residence was required from candidates for the master's degree, two for the degree of Doctor of Philosophy, and three for the degree of Doctor of Science. A thesis was required from candidates for either doctorate, in addition to the examination. The administration of this system was committed to the Academic Council, a body composed of the professors and assistant professors of the University. All the elective courses in Harvard College were opened to candidates for the higher degrees. In 1872-73 the provision of electives was liberal; elective courses were offered in classics, modern languages, philosophy, history, political science, mathematics, physics, natural history, and music. In 1872-73 twenty-eight graduate students availed themselves of the privileges opened to them; in 1876-77, sixty-one; in 1881-82, fifty; in 1886-87, seventy-nine; in 1889-90, one hundred and eleven. In these eighteen years the degree of Master of Arts was conferred on two hundred and forty-six men, the degree of Doctor of Philosophy on sixty-five, and the degree of Doctor of Science on fourteen. In 1889-90 important changes were made in the organization of the University, and the graduate department was then finally established as a separate school. It was placed under the charge of the new Faculty of Arts and Sciences, and its administration was intrusted to a Graduate Board under the chairmanship of a Dean. Thus at length

the school received full recognition. This rapid survey will serve to exhibit the prudent and deliberate development of opportunities for graduate study in this university. The account could be paralleled at other of the older American universities.

The men who faced the problems of the higher education in the United States thirty years ago had good need of clear heads and stout hearts. Many questions pressed for answer,—questions of great moment. The problem of providing advanced instruction in liberal studies might have been solved in quite a different way: the preparatory schools might have been gradually raised to a level with the German gymnasia, and the colleges developed into universities. At first inspection that is an attractive plan. The universities would then have consisted of the four faculties, and all the men gathered in them would have been mature. But wise men study conditions. This would have been, practically, an attempt to transplant the German system of the higher education into this country, and probably it would have failed. The schools, among which must be included the public high schools, could not have met the demand made upon them; the plan would have involved the practical degradation of the smaller colleges. The system that has, in fact, been gradually devised, and that now prevails throughout the country, maintains the integrity of the colleges. They may exist separately or they may be part of a university. The Johns Hopkins University, which adopted in 1876 the good, fundamental idea of establishing its graduate school first and of letting the schools of law, medicine, and divinity abide their own day, established at the same time a college. Thus the fitting schools continue to perform their original function of preparing boys for college, and the colleges in turn fit men for the advanced pursuit of liberal studies in the graduate schools. The system must be judged by what it accomplishes, and the opinion of impartial foreigners is an especially trustworthy means for reaching a safe conclusion. A professor of distinction in a German university who had lived for a period in this country recently stated in print in a German newspaper that the freshman, sophomore, and junior years in the American university that he knew best corresponded, with respect to the proficiency of the students, to the last three years in a German

gymnasium. Therefore, in estimating the number of men gathered in this university for purposes of advanced study, he included the seniors with the members of the graduate school. He stated further that its graduate students were more mature than German university students; and, finally, that its doctorate marked an attainment equal to that of the German student, not when he took his degree, but when, two years later, he presented his *Habilitationsschrift* and applied for the right to lecture. A noted professor of classical philology in the University of Berlin said to an American student last winter that the scholarship of men from the United States resorting to that university was more advanced than that of the native students. Some of us who attended lectures twenty-five years ago at Berlin ruefully remember that we had not so good a reputation. A well-known professor in the University of Oxford made a long visit to this country last spring. He has keen powers of observation, and is a man of sober judgment. In a letter to the *Oxford Magazine*, in speaking of the universities that he had visited, he says,—

“The first thing that strikes a visitor is the astounding spread of universities and the eagerness shown on all sides by men and women to have university training and the best attainable. . . . Everything is, indeed, moving, but the great question is, In what direction? I think that almost any of the professors would say, in an American direction. Time was when the colleges of Harvard and Yale trained the youth in a college course based on that derived from English Cambridge. Then there succeeded a period when German influence was supreme. Highly educated Americans had taken their course at Leipzig or Bonn or Berlin, and tried to transport, unadulterated, to America the methods of those great seats of learning. It is not generally known in England, but it is a fact, that in very recent years the number of American students at Berlin has fallen to about half of what it was, and German methods in American colleges are being modified to suit existing demands. The reason is the sudden and vast growth of what is here called graduate study. . . . By what power, it may be asked, are these men and women constrained to give three or four years after attaining the bachelor degree to higher study? In the long run, by the current belief in education and love of knowledge, which so works that no man can hope for a good post in the world of teaching unless he has done a good graduate course. The start in life is postponed, and the universities keep their best men for work of study and research. It must be clear to every one that herein is matter for serious reflection for Oxford

and Cambridge men. . . . It must, of course, be understood that only a small part of this special study is done in the field of the *Literæ Humaniores*. At Johns Hopkins, which is especially a graduate university, study mainly takes the direction of physical and biological study, though Semitic languages are also specially cultivated. At Harvard some of the classical teaching is more advanced and special than any at Oxford."

The development of graduate instruction in the United States has been especially rapid during the past ten years. Statistics in regard to the number of students in the graduate schools are easily obtainable only for a part of this period. In 1892-93 there were 1522 graduate students in eleven well-known universities; five years later, in 1897-98, there were 2477 in the same universities,—an increase of about sixty-five per cent. In 1897-98 the number of graduate students in twenty-four universities named in the *Handbook for Graduate Students* for 1898-99, published by the Federation of Graduate Clubs, was 3439.

No survey, however rapid, of this phenomenal movement would be complete that did not recognize the value of the aid rendered by the students themselves in promoting it. In 1889 a report in regard to the tone and tendencies of Harvard University was published by a committee appointed at a meeting of Harvard students who had studied at other colleges before coming here. This voluntary testimony was a protest against the loose talk that prevailed, and prevails, in other parts of the country about the low standard of work and morals in this place. This organized movement led to the establishment of the Harvard Graduate Club. Other clubs sprang up in other universities. In 1893 the Harvard Club published the first number of the *Handbook for Graduate Students*. A convention was held in New York in the spring of 1893 that was attended by representatives from graduate clubs of three universities. A second convention was held in 1895, and was attended by representatives from clubs of sixteen universities. Conventions have met each year since that time. It gives me genuine pleasure to welcome here to-night the delegates of the Federation of Graduate Clubs who have to-day convened, in their sixth session, at the oldest of American universities. You have chosen, Mr. President, a happy word as the name of your organiza-

tion,—the *Federation* of Graduate Clubs,—and you have set an example worthy of imitation by the faculties of the twenty-four universities from which you have come hither. No more infantile exhibition could be imagined than the strife that has prevailed among American colleges. It still amounts, at best, to an armed neutrality. If a dozen American universities would unite for common action, as you have united, many hard problems in graduate instruction would soon get their solution. The Federation of Graduate Clubs has taken these problems into consideration in the true university spirit, and has given them vigorous discussion. It has published valuable reports; it has addressed the governing boards of American universities on two important subjects. The number and variety of the questions to be discussed by you at this convention show how genuine and intelligent your interest is in the problems which concern all friends of the higher education.

I asked a colleague recently whether he believed in the migration of students from one university to another. "Yes," he answered, "if they migrate this way." His answer implied, since this university has adopted the requirement of a single year's residence from candidates for the degree of Doctor of Philosophy, that he would endeavor to make this place as attractive as possible. This is one of the two questions that the affiliated clubs of graduate students proposed for consideration in their first address to the governing boards of American universities. You may congratulate yourselves that some barriers have fallen. Here and there, some ancient stronghold still maintains its hoary traditional reputation for exclusiveness by discouraging, through its arbitrary restrictions, the easy movement of students from one university to another. When all the universities adopt the excellent principle of taking no account of courses pursued anywhere by a candidate for the doctor's degree, but make an independent examination the sole test of his fitness, migration will be made still easier. To penalize a candidate by taking account of courses, and by assessing courses pursued elsewhere at a low value, is an odd attitude for American universities to take towards a candidate for their highest degree.

The second question proposed by the Federation is the important

question of uniformity in the requirements for the doctor's degree and of the maintenance of the purity of that degree. As to uniformity of requirements, it again appears that the lack of a plan for common and united action by the faculties of the different universities stands in the way of a much needed reform. When shall we have a Federation of Faculties? As to the maintenance of the doctor's degree in its integrity, the fight should be waged unremittingly against the bad practice of conferring this degree *honoris causa*. In July, 1881, I had the honor to propose a resolution on this subject to the American Philological Association at its session in Cleveland, and was sent by it to lay the resolution before the American Association for the Advancement of Science, which met shortly thereafter in Cincinnati. The resolution was adopted by both Associations, and a memorial was subsequently addressed to the governing boards of all American universities and colleges, giving strong reasons why the degrees of Doctor of Philosophy and Doctor of Science should not be conferred as honorary degrees. This document was signed by distinguished men,—William Whitney, B. L. Gildersleeve, George Brush, William B. Rogers, F. A. P. Barnard, J. P. Lesley. The same protest has been renewed in many ways since that time, and the offenders are not so numerous, at least relatively, as they once were. The time has come, perhaps, for drastic measures. I propose to the Federation whether they should not publish each year, in their official organ, a black list of the offending colleges, preceded by an unequivocal statement of the nature of the offence. There would be no impropriety in this procedure : and it would have great effect, for there is nothing that such sinners so much dread as publicity.

The Federation of Graduate Clubs represents a large constituency, —3500 graduate students. These students are mature ; happily, they are in close relations with their instructors,—indeed, the student of to-day is the instructor of to-morrow. The conventions of the Federation voice the opinions and wishes of this great body of men and women. The deliberations of these conventions should be published, that they may be made known not only to graduate students in general, but also to the faculties. There is a rumor that the *Handbook* may be discontinued. Many teachers would deprecate

this, because its introductions have been their best means of information as to the current views of students ; but experience may show that in its present form the *Handbook* is not just what is wanted. It may no longer be necessary to publish lists of courses, though to do this was the original purpose of the book. The *Handbook*, however, should not be abandoned; it should be transformed. I have in mind an official publication that would serve as a medium of communication among all those interested in graduate study and instruction, to be issued at stated times, to be regularly subscribed for, and to be in charge of an editor and assistant editors,—in short, *The Graduate Students' Quarterly*. Its contents would be varied and interesting. It would contain full reports of the conventions of the Federation, news from the graduate clubs, records of the work doing in the different departments of the universities, and discussions of important questions by students and teachers. A series of papers on the history of graduate instruction in the United States is much needed at the present time. I beg to present this suggestion for your consideration.

There are other questions that concern us besides these,—questions that are not likely to press for answer during the long and busy days of a graduate student's life at the university, but are nevertheless of grave importance. In 1898 more than two thousand three hundred graduate students gathered at ten leading universities in the United States. They gathered there for the advanced pursuit of some special subject of human knowledge in the schools of liberal arts and sciences. What was their ultimate aim? Statistics show that, with the exception of an inconsiderable part, they were fitting themselves to teach their chosen branches. In the years 1873–1898, inclusive, Harvard University conferred the degree of Doctor of Philosophy or of Doctor of Science on 212 men. The noble word “teacher” is added to the names of 168 of these in the catalogue recently issued by the University. Four-fifths of the men who have received these degrees at this university during the past twenty-six years have adopted the profession of teaching, and the like fact holds true in other universities. This, then, is to be the profession of graduate students. But these men and women, wherever they may be pursuing their studies

in the United States, cherish a high and noble hope,—that, in their appointed places, they may, by their researches, push forward the frontiers of knowledge. All round about us, even as the great unknown stream of ocean encompassed the men of Homer's day, lies the region of the unexplored. To penetrate this region, and to add a little to the sum of human knowledge,—this is the lofty ideal that the true scholar sets himself.

If he succeeds, what sort of a man will he be?

His portrait has been taken. Seven years ago, in a public address, a man of recognized authority on all questions that relate to the higher education spoke as follows :—

“In this function of truth-seeking by scientific research in every field of human knowledge, the university develops a very peculiar and interesting kind of human being,—the scientific specialist. The motives, hopes, and aims of the investigator—I care not in what field of knowledge—are different from those of ordinary humanity. He must have a livelihood; but he is almost completely indifferent to money, except as it secures simple livelihood and opportunity for his work. He is wholly indifferent to notoriety; he even shrinks from and abhors it; and his idea of fame is different from that of other men. He would, indeed, like to have his name favorably known, not to millions of people, but to five or six students of the Latin dative case, or of the Greek particle *ἀν*, or of fossil beetles, or of meteorites, or of star-fish. He much dislikes to see his name in the newspaper; but he hopes that a hundred years hence some student of his specialty may read his name with gratitude in an ancient volume of the proceedings of some learned academy. He is an intense and diligent worker; but the masses of mankind would think he was wasting his time. He eagerly desires what he calls results of investigation; but these results would seem to the populace to have no possible human interest. He is keen-scented, devoted, and enthusiastic, but for objects and ends so remote from common topics that he rarely possesses what is called common sense. The market-place and the forum are to him deserts, and for the common pursuits of men he would say impatiently that he had no time.”

Do you recognize yourselves in that portrait, Gentlemen of the Graduate Schools, as you are to be five, ten, fifteen years hence? It is worth your while to scan it closely.

An ideal embodied in the life and work of a man, under the hard conditions imposed on the race when our first parents sorrowfully took their way out of Eden, rarely finds its perfect realization. The spe-

cialist, after all, is a human being, with mortal needs, and with clearly defined duties, at least to those immediately about him. He is a part of the world, and the modern world is very big and complex and urgent. One hundred and fifty years have brought great changes into the lives of university men ; but even in the eighteenth century the mechanical regularity of the life of Immanuel Kant at Königsberg was so singular as to provoke unseemly jest, —and Kant lived and died a bachelor. Nevertheless, the portrait of the scientific specialist that I have quoted is faithful, although it must be conceded that it is the portrait of the ultimate product in its highest and rarest type. Few will exemplify perfectly just this ideal in their own lives and work. The ideal, however, must be essentially realized, if the authority of the universities as seats of learning and centres of enlightenment is to be maintained ; for in the universities chiefly must be made that patient and persistent search after new truth on which depend the intellectual and material progress of the race. The immediate influence of such a man upon his colleagues is profound and permanent. We have recently suffered in this university the irreparable loss of such a scholar, Frederic Allen, a man of great learning, of creative and discriminating mind, of sure intellectual judgment, of gentle and generous nature, indifferent to common fame and simple in his ways, but eager, keen, and devoted in his search after truth.

Χαῖρ', ὦ φίλε· κόρυφα σοι χθών ἐπάνωθε πέσοι.

American universities, with a single exception, comprehend a college as well as a graduate school. The two are closely related in many ways. Graduate students in their first year are apt to find some studies best suited to their needs in the college list ; the teacher in the graduate school is generally a teacher also in the college. This system of higher education has come into existence within the past generation ; it is far from having reached its perfect form ; it presents many problems difficult of solution. In this system most of the men and women who are now students in the graduate schools hope to find their place, and there to do the work that years hence some student of their specialty will remember with gratitude. They expect, of course, to come as teachers. All the world over the specialist who is a member

of the staff of a university is also, with few exceptions, a teacher. Rarely does the university furnish him with a livelihood and the needed facilities for his work, and not offer him at the same time the opportunity to teach. Relief from the duties of the lecture-room comes to few, and to them only after years of faithful discharge of these duties. Still further, during the first years of employment, the amount of teaching done by an instructor is often heavy, and generally it is elementary in its nature. Teaching is a delight, but the most enthusiastic teacher has felt at times that it was an interruption of what he believed to be his real work in life. So felt the German professor at the end of the long vacation, during which he had been conducting his philological investigations undisturbed and happy. His good wife touched him on the shoulder and gently reminded him that the next day his duties began again at the university. "*Ach Gott!*" he replied, "*eine furchtbar unangenehme Unterbrechung meiner Studien!*"

In a complex organization such as the modern American university, which has been developed in a short time from the simple college of a former day with its fixed curriculum and small faculty, there must remain many parts not yet properly adjusted.

I beg to call your attention briefly to four questions that merit the consideration of our governors, for they relate to matters that lie beyond the control of the faculties. They are of more than local interest.

1. When a graduate student has completed his preparation for work, under guidance, he often encounters perplexing and discouraging difficulties in placing himself in the position for which he is fitted. The country is big; the colleges, though many, are not united; and our devices for giving and receiving information are clumsy. Some plan should be adopted by which the candidate could give evidence, under trial, of his ability as a scholar and of his skill as a teacher. In Germany the mode is simple and effective. Two years after he has received his degree the young doctor may apply for admission as a teacher in the university. He submits a scientific dissertation, passes an oral examination before the faculty, and delivers a public address. If approved, he receives the right to lecture for life. In rank he is the youngest teacher in the system, but he

may choose his own subjects, and enter into direct competition with professors. Such competition must tend to improve the quality of instruction. The younger man strives to do his best ; the older man does not dare to rest on his oars. This period of apprenticeship offers real advantages to the beginner : he learns the art of teaching under conditions where mistakes do not count heavily against him and may be retrieved ; he is in age not far removed from those he teaches ; he develops as a scholar, and has every stimulus to make distinguished achievements in scholarship. Meanwhile he receives the fees of those who attend his courses. The way to promotion is open to him. Promotion may not come, but the subjective misery of those who fail tells for the general good,—for the universal law of nature holds here as well as elsewhere, and the fittest survive. Competent judges believe that no other single agency has been so powerful as this in giving German universities their commanding position. Attempts have been made to introduce this system into this country, but they have been feeble and over-cautious. We have adopted the impossible imported name of “Privat-docent” for this instructor, and as yet this is the most substantial evidence we have given that we desire the real man. It ought not to be difficult to make him a part of our system.

2. When a university position is to be filled in this country, the teacher is appointed by governing boards ; but these boards seldom have such knowledge of available candidates as would justify them in making an independent selection, and they commonly accept the nomination of their president ; rarely have the faculties a voice in the matter either as a whole or as individuals, and their advice is never binding. This mode places an oppressive responsibility on an individual, the president, and denies the right of nomination to the body most competent to make it, the faculty. The French, realizing the danger of lodging the right of appointment in the hands of governmental officials, are now endeavoring to apply in their system the principle of coöptation which has secured excellent results in Germany. There the faculty, which consists only of the full professors, nominates three candidates, from whom the government must choose one. The faculty nominates with great care, after long correspond-

ence and a diligent search for the best three men in the whole empire. A certain artistic fitness characterizes this manner of choice; the professor is selected by his peers.

3. In our universities we aim to unite research and teaching. Each teacher is, or should be, a specialist, carrying forward research in some part of this subject, however small, and the investigator is inevitably at the same time a teacher of youth. He should not be burdened with classes. College teaching in the days of our grandfathers seems not to have been very difficult. A text-book was used in almost all subjects, and lessons "were heard." Times have changed; to-day the students, if anybody, constitute the leisure class. There is a trustworthy tradition in this place about an eminent professor who here revealed the beauties of Demosthenes to juniors fifty years ago. The class met for an hour, according to the schedule, at two o'clock in the afternoon; they recited in alphabetical order; the professor dined at 2.30; *and he was never late to dinner*. Teaching to-day, under the stimulus of the elective system, is strenuous. When it makes such draft on the teacher's vitality that he goes to the laboratory, or museum, or library wearied, its amount is excessive. Let us have less of it! In many departments of our universities the weekly stint of teaching remains what it was a generation ago. What wild work a clergyman would make of it who attempted to put nine sermons together each week! The teacher should be freed, further, from the correction of masses of written exercises, that bane of the English and Canadian college; and it would be better for him and for his university, if nearly all examinations were conducted by an independent board of competent examiners who were paid for this service. The judicial robe sits ill upon the shoulders of the true teacher. The two duties are as far asunder as the poles. Coming generations of teachers should be delivered from still another burden,—the labors of administration. The machinery of university administration is becoming very complex, as anybody knows who has attempted to learn the organization of a great university from its catalogue and other official documents. The university in some quarters is now spoken of as a "plant," and the disposition grows to keep the wheels of the great machine in motion for twelve months in the year.

We have faculties, administrative boards, divisions, departments, and committees without number. This work belongs to experts who are willing to make it their chief concern. To put the burden on the shoulders of teachers is to thrust still farther away the realization of their hopes of high and creative scholarship.

4. Few will enter the charge of mercenariness against the guild of teachers. To support this charge would be difficult. Fortunes may be acquired in the pursuit of business, of the law, of medicine ; but when a man adopts a university career, he knows well enough that it will yield him at best merely a livelihood. It is to his credit that he contemplates this fate with serenity, and that it does not deter him. The scientific specialist, we have been told, is almost completely indifferent to money. The fact is implicit in this statement that he needs to be looked after, as, indeed, he does. Is that duty performed ? The university teacher does not receive adequate compensation if, in order properly to support those who depend upon him, he is forced to resort to devices to increase a slender income,—extra teaching, done for the mere money it yields ; elementary book-making ; writing for magazines, or for the press, or for compilers of encyclopædias. These are debasing employments if engaged in under the sharp whip of necessity. They clip the wings of the specialist and bring him to earth.

I have touched with some hesitation, and certainly in no cavilling spirit, upon four topics where amelioration and improvement of the position of university teachers is possible,—a free field for the man who proposes to adopt this profession, in which he shall be able in youth to demonstrate his quality ; the choice of professors by their peers, under due restrictions ; relief from excessive teaching, from the duty of examinations, except the highest, and from the detailed work of administration ; the increase of the stipend to an amount adequate for support without forced resort to other means of income.

Thirty years ago it was said in this place, on a memorable occasion, that very few Americans of eminent ability were attracted to a university career. Do the ablest men still pass this profession by and choose another ? And why ? In other countries this is an attractive

calling chosen by the ablest men. In Germany the university is felt to be a part of the national life. There a professor holds a distinguished position, and fathers choose for their sons one or the other of two professions,—if they are imperialists, the army ; if they are liberals, the university. A career at the university is regarded to be superior to the practice of either the law or medicine. The income from salary and fees of a professor in a German university is often much greater than that received by any professor in an American university ; he is not infrequently called to a public position ; and yet it is to Germany that we instinctively turn when we seek for the scientific specialist.

In this country the university has not yet reached this dignified place in the popular estimation. On the contrary, the community often displays an ignorance of its aim and a lack of sympathy with its achievements that are humiliating. “Who, sir,” said an orator in the Maryland Legislature last winter, when a bill was before it to relieve the acute and unmerited distress of the Johns Hopkins University,—“Who, sir, are their professors? Men chosen from all over the country, and from *abroad*. They should have been taken from the city of Baltimore and the State of Maryland.” The bill failed to pass. Furthermore,—but let this be said under the rose,—many college-bred men still show a curious conservatism in their attitude towards the reforms in university education that have been achieved in the last generation ; they distrust the election system and look askance at the higher education. As yet they do not appreciate the profound importance of the movement that has resulted in the establishment of the graduate school.

But these are external limitations on the efficiency of the system, and in time will disappear. Meanwhile the system itself needs reform. The strength of a university does not so much subsist in its material equipment or in the number of its students as in the ability and efficiency of its teachers. If American universities are to be the chief seats of scientific research in the country, and the resorts to which students eagerly come who desire the highest and best instruction in literature, in the arts, and in the sciences, they must attract and secure the services of men of the most eminent ability. They will not succeed in doing this, in the largest measure, unless the in-

cumbents of these high places are freed from petty anxieties and relieved of burdensome and irrelevant duties.

There is still another series of questions. These immediately concern the graduate student; unlike the foregoing, they do not relate to those provisions for his future work as teacher over which he has no control. They pertain, indeed, mainly to his future, but they are of present importance because the success of his career will depend on his clear appreciation of them and the determination to which this leads. Let us briefly consider three of them.

1. The teacher must know his subject, and the bounds of his knowledge of it must be constantly extended.

The true aim of a university should be to teach all subjects of human knowledge. Cornell's description of the university he wished to establish is celebrated: "I would found an institution in which any one may study anything." The graduate student pursues some subject within this vast domain; and he comes to realize how precious are these years of acquisition and training, in which he works without interruption. He does well to prolong the period, although he should not dally in taking his degree. Many universities now wisely provide resident and travelling fellowships, open to those who have received the doctorate. When the student has put on the harness, he will look back to the quiet, undisturbed, fruitful years of preparation with longing.

The demands now made at those universities in the United States where the standard is highest, on those who seek the doctorate, are rigorous. Happily the candidate is not expected to know everything. Omniscience is the prerogative of deity. But his knowledge, so far as it extends, must be profound. It may embrace but a small part of the special field in which he works, but in this part he must show himself a master. Thus, the universities demand that the doctor's thesis shall be a real contribution to knowledge, and the candidate is expected to know the particular subject it discusses better than any of his examiners. When the work of preparation is ended, the equipment of the young doctor is, at best, limited. He is well enough aware of this, and intends to make steady additions to his stock of knowledge; but he has reached that time in his life when

he is most in peril of making shipwreck of his career, a time of danger, of difficulty, and even of discouragement. His teaching may be heavy and may be all elementary, although some universities already make the wise provision that no young instructor shall have only elementary teaching to do, but each year at least one course where he works with graduate students. This keeps the fire of scholarship burning. Or he may be removed from university influences, and find his place in some college where he is expected to cover a preposterously wide field,—for example, to quote an actual instance, psychology, ethics, and the history of philosophy,—and where the provision of laboratories, museums, and a library is meagre. Or, if he is of sanguine temperament, he may be tempted to undertake unprofitable forms of activity. To such a man at twenty-five all things seem possible; at thirty he begins to doubt, at thirty-five to hedge, and at forty to impose on himself definite limitations. Now, it is not pleasant, in later life, to look back with regret upon misdirected effort. The most successful teachers I have known have been those that in early life sagaciously took account of themselves and of the future, and determined upon a plan. This they have modified as circumstances demanded, but they have constantly kept before themselves a definite conception of what their native powers, their training, and circumstances enabled them to do, and have aimed at that. And the very heart of their plan has been, whatever the hinderances that barred their way, steadily to push forward the bounds of their knowledge. Year by year they have resolutely traversed separate tracts of their subject, in order by these successive additions ultimately to possess an intimate and minute knowledge of the whole. These are the men that sooner or later win the full authority of the master.

2. The teacher must know how to teach his subject.

The current phrase, "he is a born teacher," is half right and half wrong. The teacher must have certain natural qualifications,—an enthusiastic spirit, a sympathetic nature, a quick apprehension,—but still it is not proper to affirm of him, as of the poet, *nascitur, non fit*. Teaching is an art. Not all men succeed in acquiring this art, but natural aptitudes may be greatly strengthened and developed by

observation and experiment. Who has not drawn instruction as well as inspiration from the example of some great teacher? How many men of the older generation remember Louis Agassiz with affectionate admiration! The lives, too, of such men are profitable reading. Ribbeck's *Life of Ritschl* has smoothed away difficulties in the path of many a teacher of the classics. Many problems the teacher must solve for himself by patient experiment, after sympathetic study of the dispositions, aptitudes, and acquirements of the men he teaches. Two kinds of men, it has been said, make good teachers,—young men and men who never grow old. Whether the art of teaching can be overtly taught is another question,—a question, indeed, that now mightily engages attention. Older men are inclined to look askance at the science of pedagogy, probably because some of the claims of its devotees are extravagant. But it cannot be denied that there are good methods and bad methods, and only the foolish reject the lessons of experience. It would seem reasonable that every teacher should study at least the history of educational theory and practice,—that cannot but enlighten and broaden him,—and we should not too hastily conclude that it is not possible to arrange the principles that underlie this great art in a philosophical system.

3. The teacher must know more than his subject.

Teachers and students alike who have had experience of the elective system are generally its stanch supporters. This system now prevails in varying degree in most colleges in the United States; it obtains, of course, in all graduate schools. In the colleges it has not caused general undue specialization; but it has led some men there, who have early determined upon the profession of teaching as their career, to devote themselves almost exclusively to a special subject. They have done this deliberately, realizing how exclusive their pursuit of their chosen subject must be, if they would early achieve excellence and recognition in it. The supposed case of an earnest fellow who enters this university as a freshman at the age of eighteen and has already decided to be a teacher of the classics will serve in illustration.

Twelve of the eighteen courses required from him for the degree of Bachelor of Arts will be apt to be courses in Greek and Latin. If

he is wise, with reference to the object he has in view, he will devote no small part of the remaining third of his time to the study of the German and French languages ; for he must have command of these languages as tools. He will be a Final Honor man at graduation, and very likely will receive his degree *summa cum laude*. He then enters the Graduate School and devotes himself solely to the study of the classics, which, I beg to say, with its vast literatures, ancient commentaries, and a modern apparatus that has been growing for five hundred years, is not a subject to be approached in a casual and jaunty manner. Now, if ever, he must specialize. He takes a distinguished degree and goes abroad for a year. He probably sees the cities and habitations of many men, living and dead. But the serious work that he does abroad, and he does serious work, is again devoted to his specialty. Then he comes home and begins to teach. This is a possible case in the department I know best ; doubtless the parallel case exists in all other departments.

Is this able man's preparation for his work in life the best he could have given himself? This is a perplexing and difficult question. Like Heracles at the dividing of the ways, we are drawn in two directions. A brief for the negative would state the case as follows :

There are different methods of thought. There is a method of thinking in language, another in mathematics, and still another in the natural and physical sciences. To neglect the development of power in any one of these is unwise. The student of language needs thorough training in mathematics and logic, if his work in linguistics is to be trustworthy. Again, the classical student, in particular, should cultivate his powers of observation till they become swift and unerring, for the classical languages are highly inflected and their structure is intricate. The doryphora decemlineata, I believe, the advocate of the negative would continue, have six legs, although I am open to correction on this point by any entomologist present. This is the creature that common folk call the potato bug. But the Greek verb has over one hundred endings ! The complete appreciation of a passage in Sophocles, Plato, or Demosthenes may depend on one's ability to determine with quick precision the exact force of some Greek optative. Now that the new science of Classical Archæology

has been added to the domain of Classical Philology, cultivation of power in observation is more than ever necessary. Thus much for his training as an undergraduate, the negatives would say. But further. This supposed man is to be a teacher and a teacher of two great literatures ; but his training has been such as practically to prevent his becoming acquainted with the great modern literatures which are so intimately related in many ways to the Greek and Latin ; and possibly this rigorous training that he has received may have produced in him—the thing has been known to happen—literary atrophy, so that he reads a scene in Æschylus that flames with all the human passions that have rent the souls of men since men were, with cool, critical appreciation of the language, but feels himself no touch of the divine fire. Thus, the negative.

Charles Darwin in his youth was a reader of the poets, and was especially fond of Shakspeare. He took his degree at Christ Church, Cambridge, in 1831, and immediately set sail, on H. M. S. "Beagle," on that memorable voyage that lasted until 1836. He contracted on this voyage the chronic illness that afflicted him all the rest of his life, but it did not incapacitate him for work. He was a prolific writer, but solely on themes in natural science. His "Origin of Species" was published in 1859. Later in life he confessed that he had completely lost his interest in the great Elizabethan poet. He turned the pages with indifference and could not read him. This illustration will seem perhaps to nullify its intended moral, for to be a Darwin most men would doubtless willingly relinquish all the poets.

In the *Handbook for Graduate Students* for 1897-98, published by the authority of the Federation of Graduate Clubs, there is an interesting table that shows the choice of subjects by 3204 graduate students enrolled at twenty-four universities recorded in the tabular list of the *Handbook* for the preceding year. The subjects of study are arranged in seventeen groups, and it proved to be possible for the compiler of the table to classify all the students within these groups. This establishes the fact, of course, that very exact and very extended specialization of studies exists in these graduate schools. The lines do not cross. The students of a special subject are pursuing that subject exclusively.

Is this specialization in the graduate schools an evil? To me it seems that it is not. Specialization of study is, indeed, the fundamental fact in the very conception of a graduate school. But if specialization means that the specialist has no other interest in life save his own single subject ; that it is with him when he goes to bed, and when he gets up, and that he obtrudes it upon his friends at dinner ; that he looks upon other subjects with indifference ; that he has no interest in politics, poetry, music, or religion ; that he has ceased to be a reader ; that he no longer believes the profound truth that, unless the imagination irradiate the reason, the man is not whole,—then, indeed, it is an evil, and there is such a thing as over-specialization. But it is possible, Gentlemen, to know one subject profoundly, and to acquire also an accurate, general knowledge of many others, and this has been the type of nearly all the greatest teachers.

Report of the Committee on Migration,* E. Robertson Buckley, of Wisconsin, Chairman.—As a basis for this report the committee sent to the graduate clubs circulars embodying a series of questions pertaining to graduate study and migration. Out of a thousand circulars sent, there were returned two hundred and thirty-three.

An examination of the catalogues of the various universities shows that less than fifty per cent. of the graduate students have migrated. Migration is more general in the east than in the west. Students of natural science, on account of the peculiar conditions surrounding their work, are less apt to migrate than students of history, political science, or language.

Every student who pursues graduate work takes away certain personal impressions of his instructor, and replies to the questions show that information in regard to an instructor comes mainly from impressions received by former students who had been working under him. It is evident that a student from a smaller college meets with difficulty in obtaining full credit for work done in proportion as the college is distant from the graduate school. Migration is hindered somewhat by difference in standards recognized by the universities. In the earlier years of study it is easier to migrate than in the final years. One cannot go to Harvard from a Western institution and readily obtain credit for two years' work at the latter institution. Further, a Ph.B. degree is not recognized by all institutions. The fact that fellowships are most easily obtained by alumni of the institution, and the fact that certain colleges require a student to

* This report was very long, and the editor has been compelled, from lack of space, to condense it very much.

state his intention of taking his degree at the institution offering the fellowship, often hinders migration. But these hinderances are not general. Migration between the larger colleges and universities is encouraged by the requirements of these schools.

Many students emphasized the fact that they were doing work at an institution where they believed the requirements to be very high, and that they would not do graduate work at an institution where they were loose, believing that the higher the requirements the greater the value of the degree. In general, it may be said that the standard of value one attaches to a degree is an important influence in directing him where he is to study. A number were influenced by library and laboratory facilities. It appears that the excellent library facilities of Columbia and Harvard have been an attraction for students in certain lines of work. The excellent library and laboratory facilities of Wisconsin have also attracted some. Several students replied that the far Western colleges were woefully deficient in library and laboratory facilities, which influenced them to go elsewhere. Graduate students are not influenced by the athletic standing, and they avoid a sectarian school where the moral atmosphere is at high pressure. The location of the institution is of secondary importance; but one-third of the students were influenced by the location of their home. In some instances the student could not have studied at a college if it had not been located near his home. Others were influenced to go from home. The requirement of certain institutions that the thesis be printed was thought by some to be unjust, and a possible hinderance to migration.

It is evident that the important influences drawing students to European universities are : (1) desire to see the Old World ; (2) desire to become familiar with foreign languages ; (3) because sentiment favors those who have studied abroad for positions in our colleges. Students do not go because the instruction in European universities is better than in our own country.

We now come to the larger question of the advantage to be derived from migration. If a student is financially independent, and is not compelled to go to work upon completing his graduate work, he will profit by migration. If he is a student of natural science, and it is necessary to conduct his thesis work for two or more years in the laboratory, it would be questionable policy for him to migrate. On the other hand, students of sociology should migrate to study life in different localities. If it be necessary for the student to secure a position immediately upon the completion of his graduate work it is doubtful if migration be advisable, as under ordinary circumstances the student who remains at one institution for three successive years has the better chance of an appointment.

A man becomes broader minded and attains a breadth of culture and a knowledge of men and affairs in consequence of migration. Students in Eastern colleges and universities are near the centre of culture and have library

and laboratory facilities which are scarcely equalled in Western institutions. The social surroundings of the East and West are different. It should benefit an Eastern student to become familiar with the rapid development and bustling energy of the West, and likewise the Western student to share the culture of the East. It is of great advantage to come in touch with new men and new methods. It is of great importance to the graduate student to have an acquaintance with a large circle of graduate students of his time, and to know personally and feel the influence of the men who are masters of the subject he is making his life work.

There is nothing that should attract students who expect to become teachers more than the method of presentation of the subject by the instructor. For efficient work the instructor must, first, be thoroughly familiar with his subject; second, have the ability to impart knowledge successfully. This latter requirement is met in different ways by different men, and it is to know more about different methods of presentation that a student should migrate. We have no more crying need in our universities than for men who know their subject thoroughly and can impart it in a clear, forcible way.

It is questionable if frequent migration be advantageous. A student from the West intending to devote his life to teaching in the West should derive the maximum of benefit from one year's residence in the East, and likewise one year should be sufficient for an Eastern student to reside in the West.

IN THE DISCUSSION, led by Mr. Edmund B. Huey, of Clark, the suggestion was made that the whole question, which is a different problem for each department, might be made a subject of critical study by students in pedagogy. The task undertaken by Mr. Buckley was too great; handling questions and returns requires a special training. When we have determined how far migration is advantageous, the faculties will arrange to promote it. It is important to know how the universities themselves look upon the matter.

PRESIDENT ALDEN read a letter from Professor Magie, of Princeton, in which he said: "The most effective way of raising the standard of graduate work is for the graduate students to select their place of study with an eye to the *teachers* that they will work under. In this country so many other considerations enter into a man's choice of his place of study that the opportunities offered him in his own subjects become a secondary consideration. In particular, the university where he spent his undergraduate life becomes a sort of holy place, which he feels bound to frequent until his work is over. Your Federation could do much to break down this really absurd habit of our students. . . . We should do all we can to promote practical similarity of method and of requirement for the Ph.D. degree, so that a student, if he chooses, can study at any one or more than one recognized university, and come up for his degree at any other. That is, so that in the future there shall

be no requirement of residence in the university in which the student comes up for the degree. . . . It would help if there were a uniform system of recording the student's work, like the *Anmeldungsbuch* of the German university."

PROFESSOR WHITE, of Harvard, recommended that in granting a degree no previous work be counted, but that the degree be granted entirely according to examination.

A COMMITTEE was appointed to continue the investigation of the subject of migration and report at the next annual convention. (See list of committees, page 6.)

Report of the Committee on Major and Minor Subjects, William A. Schaper, of Columbia, Chairman.—The statements in this report are based upon the latest published catalogue of each university and upon letters from, or personal interviews with, the president or some one acting in his behalf, usually the chairman of the committee on graduate study. The personal letters were replies sent to a number of questions asked covering these three points: 1. What are the regulations concerning the selection of major and minor subjects, especially with reference to limitations on the field to be covered? 2. What is the actual practice? 3. Is the aim to give the candidate for the doctor's degree a professional knowledge in a limited field, or a broad culture?

The evidence at hand shows that twelve out of seventeen universities require the candidate to pursue one major and two minor lines of study. Of the remaining five, two, Harvard and Northwestern, do not use the terminology of "major and minors;" Chicago requires "at least one minor;" Leland Stanford, Jr., requires one, or two, depending upon special circumstances; and Brown requires but one. There appears to be a considerable variation in the latitude allowed the candidate in the exercise of his individual choice, and also in the amount of discretionary power given the committee on graduate study, or some other authority representing the faculty that has these matters of detail in charge. Two opposite tendencies are readily noticed. One is to allow each case to be decided upon its own merits, within certain *general* bounds that are prescribed. The other is to lay down certain fixed and uniform requirements, leaving only a minimum amount of the arrangement to the choice of the individual candidate and the discretion of the committee on graduate study or the instructor. A comparison between Columbia and Harvard in this respect will make this clear. At Columbia, in the case of certain subjects, the choice of the major necessarily determines the choice of the first minor. There is a great deal of freedom allowed, however, in the choice of the second minor, but the subjects must not be too closely related (the precise regulations vary somewhat under the different faculties). The second minor may be changed at any time during the course. At Harvard the candidate for

Ph.D. first designates the division of the faculty in which he desires to take his degree. There are fourteen such divisions. He must name some special field of study within that division and be prepared for minute examination on the whole of that special field ; also to show such acquaintance with the subject matter of his division in general as the committee in that division shall require. These two universities may be taken as types of which they are perhaps the extremes. The others might be grouped under the one or the other head as they incline more towards uniform regulations, or towards individual treatment of each case, within certain very general bounds.

We strike right at the core of the whole matter when we come to the third point. Should we aim at proficiency in a limited field or should we aim at a liberal culture? Here again there is some difference of opinion. But a careful analysis of the evidence at hand seems to disclose three more or less clearly defined views. One view is thus tersely stated by President Seth Low. I quote his exact words : ". . . According to our conception the object of the college is to give a liberal education. The object of the university is to make specialists. We therefore encourage the choice of minor subjects that tend directly to improve the grasp of the student upon his major." A similar view is indicated by the evidence at hand from Cornell, California, Wisconsin, Yale, and Michigan. This accounts for the rather stringent regulations of three of the universities of this group regarding the choice of the first minor in particular. The aim is evidently to require the student to select the minor that will give him a better grasp on his major.

The second and quite the opposite view is taken by President Henry Wade Rogers, of Northwestern. His statement is : "The higher degrees, in my opinion, are coming to be regarded as certificates of proficiency in a somewhat limited specialty, I think possibly the tendency to limit in this way has been carried too far, and that the degrees should stand rather for broader culture than for a severely technical proficiency." A similar view is expressed by Chancellor J. H. Kirkland, of Vanderbilt. He says, "I am in favor of a somewhat comprehensive course of study for this degree. I believe in three subjects for the doctor's degree with quite thorough work on the minors, and that the three subjects ought to be properly correlated so as to secure thorough training in a comprehensive field of knowledge." Princeton emphasizes the professional aspects of the degree more than any other university. One of the minors may be taken in philosophy by any candidate. Her aim seems to be to give the holder of the doctor's degree the equipment that he will need to teach in the schools and colleges of America at the present time. This, it is thought, is secured through a liberal culture, rather than marked specialization. If we may judge from a very brief statement at hand, President Eliot inclines to the view taken by this second group of universities. But his view differs from the preceding ones in that he would place

equal emphasis on both special training and broad culture, while the others place the emphasis either on the one or the other.

There are evidently two types of workers to be found in our higher institutions of learning,—the instructor and the investigator. The former makes a special effort to drill the student in his subject. He looks at his work largely from the pedagogical stand-point, with a view to giving his classes the kind of information that they can assimilate and make their own. He does not hesitate to sacrifice the subject to the student, if the occasion seems to require it. The student is uppermost in his mind, while the symmetrical treatment of the subject is a secondary consideration. The type of worker who is primarily an investigator adopts quite the reverse method. To him the subject-matter demands first consideration. He is primarily interested in developing the subject, while the other is interested mainly in developing the particular student before him. One teaches the student, the other the subject. The former at his best is found in our smaller colleges and normal schools, the latter at his best in our larger universities. Sometimes we find the two combined in one. Then we have the true teacher. Such men, I believe, however, are rare among the instructors in our colleges and universities to-day. What our graduate course shall be depends on what our ideal of a university teacher is. If it be the instructor, pure and simple, that we want, then we will not place the emphasis on specialization. On the other hand, we will not hesitate to do so if we conceive the business of the university teacher to be primarily to do original research. I believe that the holder of the doctor's degree should be a teacher in the fullest and truest sense of the term, but the cultural side of the education should be obtained mainly in the preparatory and undergraduate courses. The pedagogical element consists of formal training in the art of teaching and at least a minimum amount of experience in the actual conduct of a school. This should be acquired during the early years of the college course, the student dropping out a year or so to teach. Our Doctors of Philosophy are often weak on the pedagogical side of their equipment. The doctor who is also a teacher is in demand, and I believe the man best fitted to meet that demand is the one who has planned his college course as stated. The university should accentuate strongly original research. The student should aim to cover a special field with thoroughness. To that end his minors should be such as bear directly upon the major. The thesis should be in his major line, and of such a nature as will enable him to make his special work culminate with it. It should cap off his chosen specialty.

MISS MARY E. PARKER, of Radcliffe, in the discussion of this report, stated that at Columbia the amount of latitude allowed in the choice of minors depends largely upon the major professor, and in some departments is much less than in others; and at Harvard the group system does not necessarily

mean that the requirements are so fixed that the possibility of choice on the part of the student is reduced to a minimum. Universities cannot be characterized as typical of either extreme; both tendencies are found in the same institution. However, it seems to be rather generally believed that the degree of Doctor of Philosophy stands for something more than broad culture, and should mean special training and advanced work along definite lines.

Report of the Committee on Revision of the Handbook, Henry Barrett Learned, of Harvard, Chairman.—The first graduate club was organized at Harvard in 1889, and in the next few years clubs were organized at several other institutions. April 23, 1893, representatives of the clubs of Harvard, Johns Hopkins, and Cornell met in New York. From this meeting of affiliated clubs the *Graduate Handbook* originated. The first edition was compiled by a committee of the Harvard Graduate Club, in co-operation with committees of the clubs at Cornell, Johns Hopkins, and Yale. It contained the officers of the four graduate clubs; an "Address to the Governing Boards of American Universities by Graduate Students," which was adopted at the meeting in New York, in April, 1893; brief general accounts of eleven universities; a table giving the number of students and instructors, and the Ph.D. requirements in those institutions; and the list of the instructors giving graduate instruction, with their scholastic records, and the graduate courses offered by them in 1893-94. The book contained eighty-three pages, of which sixty-eight were devoted to the list of courses.

The second edition differed but little from the first. The number of universities was increased to nineteen. To the table were added the fees, the fellowships and scholarships, and the numbers of books in the libraries. The price this year was ten cents, and one copy was sent free to every college in the United States and Canada.

The third edition was compiled by an editor-in-chief elected by a convention of graduate students held in New York, April 16, 1895, aided by a board of assistant editors from the nineteen institutions there represented. The number of universities included was twenty-one. The contents were about the same as in the previous edition, with the addition of an abstract of the proceedings of the New York Convention of Graduate Students, and an index of the names of the instructors.

In January, 1896, the Federation of Graduate Clubs was organized in Philadelphia, by representatives from the graduate clubs of eighteen institutions, and the *Graduate Handbook* became the publication authorized by the Federation. The *Handbook*, this year, included twenty-four institutions. The matter published was about the same as the previous year, except that a brief report of the proceedings of the Philadelphia convention occupied the first place in the book.

In the fifth edition there was introduced a list of the recipients of the doctor's degree in the preceding year, with the titles of their theses, classified by institutions. The proceedings of the annual convention of the Federation of Graduate Clubs were published at greater length than in any earlier edition, and again occupied first place. This was the third edition from the hands of the same editor-in-chief, Mr. C. A. Duniway, of Harvard. The committee consider it the best of the six editions that have as yet appeared.

In the sixth edition the convention proceedings again held the first place; the results reached in the committee reports were summarized, as they had been in the preceding year. As an innovation the address of Professor Tufts upon the subject, "The Relation of Philosophy to Other Graduate Studies," which was read at the Chicago convention of the Federation, was printed in full. This year, in addition to an editor-in-chief, a business manager was elected to relieve the editor of all except strictly editorial work. The number of pages was 206, of which 141 were devoted to the list of courses. The book was widely advertised, and sold for fifty cents a copy.

Thus it is seen that there has been a gradual evolution from a mere book of reference towards a handbook which should be distinctively the organ of the Federation of Graduate Clubs. An association of four clubs created the *Handbook*; the *Handbook* created the Federation. Will the Federation recreate the *Handbook*?

The financial reports of the successive years show clearly that the *Handbook*, as it now exists, is not wanted. The expense of publication has been met by annual assessments of fifteen to twenty-five dollars, levied upon each of the graduate clubs. The receipts from the sales and advertisements have yielded every year less than one-half of the total cost, usually very much less. Notwithstanding a somewhat fictitious demand created by soliciting and advertising, there is little hope that the book in its present form can ever be a financial success. About one hundred copies were sold of the edition of 1897-98, and apparently the normal demand is not more than this. The experience of the editors shows that, as many institutions do not announce their courses for the following year until late in the spring, it has been impossible to gather the matter for the compendium of courses early enough to issue the book before June, and by that time the period of its greatest usefulness has passed.

In conclusion, the committee offered the following recommendations:

1. The Federation shall issue a publication during the coming year.
2. The publication shall be as simple as possible, shall contain not over seventy-five pages, and shall be published not later than March 15, 1899.
3. It shall contain:

(a) The proceedings of the convention.

(b) The recipients of doctors' degrees in 1898, with the titles of their theses.

- (c) The usual table, somewhat enlarged, if thought advisable.
- (d) A list of the graduate clubs and their officers.
- (e) A list of the universities of the Federation, with the names and addresses of the presidents and the deans of the graduate schools.

4. The office of business manager shall for the present be abolished, and the editing and business management be intrusted to one person to be chosen by this convention.

THE CONVENTION added to the recommendations of the committee that, if space permit within the seventy-five pages, an index of instructors, and statements of the facilities and the number of students in the various departments at each institution be published.

PROFESSOR WHITE, of Harvard University, spoke of the need of a publication devoted to the interests of graduate students. Teachers in academies and other secondary schools in the United States, he said, were so fortunate as to have at their command several journals which kept them acquainted with current opinion on the problems of secondary education, and offered them a medium for the expression of their own views. One publication of capital importance, the *Educational Review*, dealt with the problems of education in general and served the interests of college and university men. There were many journals also in America that were devoted to special subjects,—economics, history, the classics, and the like. But there was none intended to meet specially the needs of graduate students and of teachers in the universities whose work was mainly with such students. This was a large class. The *Handbook* for 1898-99 reported that 3439 graduate students were resident at twenty-four universities in the United States in 1897-98. These teachers and students felt the lack of a means by which they might be kept informed in regard to what was going on in the busy world of the higher education. The universities were widely separated, and it was difficult to learn about their doings. A journal was much needed which would furnish this information and at the same time be a medium for the discussion of higher educational problems. He had already indicated, in a general way, what the contents of such a journal might be. The difficult thing would be to provide the means for its publication; it had better not be undertaken now except on a basis that would assure its publication for a period of years. But the financial success of other educational journals was encouraging, and it might be worth while to appoint a committee to consider and report on the matter.

THE CONVENTION ordered that a committee of five, including Professor White and President Alden, be appointed to consider the publication of a periodical in the interests of graduate students. (See page 6.)

SPECIALIZED SCHOLARSHIP VS. PREPARATION FOR
TEACHING AS A BASIS FOR GRADUATE STUDY.

JOSEPH PARKER WARREN.

(Harvard University.)

The title of this paper suggests a question : Are specialized scholarship and preparation for teaching distinct and possibly opposing ends of graduate study? None of us, certainly, would answer this question with a general affirmative. President Eliot, in his address yesterday afternoon, showed clearly that he would not so answer it. There are few things, I think, which it would be more profitable for this convention to emphasize than specialized scholarship as preparation for teaching. We might say, with but slight qualification, that it is the only preparation for teaching which, given the necessary natural endowment in the prospective teacher, is worthy of entire confidence. How can any teacher feel satisfied to teach as far as he knows? What state of mind can be more harrowing than that of one to whom continually recurs the awful doubt whether the limits of his own knowledge lie at a safe distance beyond the point to which he is required to teach? One would seem always to be facing an examination with insufficient preparation. The tendency to specialize on the part of those who intend to teach rests on a very practical necessity. He who would teach in these days faces a most serious condition. He looks about for a congenial subject in which to give instruction, and he finds that almost every branch of learning is being subjected to detailed elaboration by specialists. He has the choice between remaining a tyro in his subject all his days and becoming a specialist himself. The practical question we have to answer is not whether specialization is good, but how we can best adjust ourselves to the specialization which is characteristic of the age. I do not say we should merely drift with the tendency to specialize, that we should not try to direct it, that we should not try to remedy the evils by which it is often accompanied ; I do say that to

refuse to specialize is to put ourselves in an essential matter out of harmony with the modern system of education.

However, when all is said and done by way of showing that specialized scholarship and preparation for teaching are closely bound together, I still think it quite worth while to draw certain contrasts between them. Specialized scholarship need not always lead to teaching. Certain aids in addition to scholarship may be of value to prospective teachers.

• Taking up the first point, I would make a plea for a greater amount of specialized scholarship as distinct from preparation for teaching, not as opposed to it. This is quite in line with the suggestion which President Eliot made yesterday. He said that graduate study should prepare for many things besides teaching,—for journalism, for various learned professions. To this, certainly, we all agree. We would increase the proportion of highly educated men in the community. We trust the time is coming when our graduate schools will not only satisfy the demand for highly trained teachers, but will render the service they should to many professions other than that of teaching. If we take this attitude we shall be delivered from the fear of overdoing the matter of higher education.

What I have in mind, however, differs from the thought just outlined in that I have been thinking of specialized scholarship for its own sake, of the training of men not for teaching or for any active profession, but for the devoting of their lives by study, by investigation, and by writing to the advancement of various branches of human knowledge.

This is work to which, so far as my observation goes, systematic attention is not given in this country to any adequate degree. Original work is, indeed, done, and able books are written, but the accomplishment of this work is too largely merely an adjunct of the profession of teaching, and is crowded into the spare moments of already busy lives. The unfavorable conditions under which original work is done tell against that work by stunting its quantity and often by impairing its quality. The work of teaching, on the other hand, can hardly be done to the best advantage by men who strive to accomplish two tasks in time that is barely adequate for one,

The state of affairs to which I refer is due, undoubtedly, to the conditions of American life. We have never made provision in this country for the advancement of learning as a matter distinct from the various learned professions. Ours is a new country, and doubtless we have attended to the most essential matters first. We are a hard-headed race, and slow to believe that a man is earning his salt unless he is continually producing definite results. The fact remains, however, that to-day we are far from having made sufficient provision for the cause of American scholarship.

Consider the case of a young man who wishes to devote his life to the study of a certain branch of learning and, if possible, to the further advancement of it. What possible courses are open to him? Scarcely more than three, two of which must be classed as exceptional. In the first place, he may have an independent fortune. In this case he can proceed without hinderance to his chosen works. But we cannot afford to intrust the cause of scholarship to the chance union of wealth and the inclination to study. In the second place he may make a fortune, wind up his business, and then settle down as a scholar. We know of men who have done this, but it can never be a common practice. Finally, he may fit himself to teach the subject which he intends to make the field of his life work. This last course, as we know, is the one most commonly chosen. One can always learn something about his subject from teaching even its elementary parts; he also maintains that close relationship with it which is essential to progress. Of those who adopt this last course every graduate school has representatives among its students. Their presence accounts in some degree for the great preponderance among us of prospective teachers. We may divide these prospective teachers into three classes: first, teachers by choice; second, teachers by necessity, but still good teachers; third, teachers by necessity and poor teachers. Those who compose the first of these classes have doubtless chosen their work wisely. Those in the second class may chafe under the limitations of their calling, still they will serve their generation well. In the third class matters are clearly wrong. Here are some, indeed, who should not have attempted advanced study in any case. Here are others who have capacity for high scholarship, for

thorough research, for independent thought, but who lack the endowments essential for successful teaching. On two counts these last will fail of their duty to society. They will not do what they might for the cause of scholarship; they will swell the appalling number of unfit teachers. Finally,—and this is the worst feature of the situation,—they are quite as likely to be chosen for important teaching positions as are those who perhaps know less but can teach much more. Especially good is their chance to be called to college instructorships, for the filling of which, scholarship, by a strange tradition, is often the only requirement. What they can do as teachers will be learned at the expense of their pupils. The problem before us is clearly twofold,—we must keep the good student who is a bad teacher away from teaching; we must enlarge his opportunities for continued study. Neither of these things, I think, can be satisfactorily accomplished till we have adequate provision for independent scholarship.

In Europe such provision exists to a considerable extent. Speaking very generally, we may say that society is more settled there than in America, and that the union of independent means and scholarly habits is more common. Certain institutions, also, serve generously the interests of scholarship. We think first of the church. We are not likely to exaggerate the service which the church has rendered to the cause of learning. We know how it preserved the classics, how it produced the best thought of the Middle Ages, how it supported the scholars of the Renaissance, how it has constantly done its share in the work of modern scholarship. The procession of works produced by deans and rectors and bishops shows that the cause of learning still draws important support from church endowments.

In the second place, university professorships give more opportunity in Europe than in America for original work and the writing of books. The German professor is chiefly engaged in investigating his subject; the American professor in civilizing undergraduates. Of course, the German professor delivers lectures, but these are largely the results of his researches and sometimes merely extracts from his published works. He also gathers about him a little group of devotees to whom he gives stimulating guidance. For the rest, he pursues his

magnum opus. In England, also, the professor gives certain lectures, but others carry the main burden of instruction and leave him free to make his contribution to his subject.

It is easier to see an evil than to find a remedy. I have noticed but one proposal looking towards increased provision for independent scholarship in America,—namely, that college professors should do less teaching than is now required of them. Much, no doubt, may be accomplished in the way suggested. The American professor is overworked. He spends more time and energy in direct service for the community than, perhaps, does any other teacher in the world. Often he has no time at all for writing. Excellent professors can be pointed out who have written almost nothing but their doctors' theses. These efforts, crude at best, bulk altogether too large in the total published output of American scholars. However, in cutting down the teaching work of the professor let us exercise a certain caution. The ideal American professor is, first of all, a great teacher. Let him continue to be this. Let us give him more time to study, but let us not make his teaching secondary.

One other suggestion I would offer towards solving our problem. Why should we not have at our great seats of learning endowed positions for investigators as well as chairs for teachers? As yet our universities—even the best of them—are primarily schools; to an equal degree they should be laboratories for intellectual workers. We have done a little already towards making them laboratories; we should do vastly more. A prime test of the efficiency of a university should be, what is its output of original work? To meet this test doctors' theses and occasional books by teaching professors should not suffice. Ample endowments should support first-class scholars who would devote their lives to the investigation of special fields. Till within a year there was connected with this university a scholar who was doing work similar to that here indicated, and who added to the fame of Harvard at home and abroad. The late Dr. Justin Winsor was enabled by his positions as librarian, first in Boston, and then here, to devote a large part of his life under favorable circumstances to the study of American history. He succeeded in producing the most important contribution to his subject which has yet appeared. Op-

portunities such as his should be multiplied. The cause of sound learning and the cause of good teaching would both profit by their existence.

We have considered specialized scholarship as the chief element of preparation for teaching, and again as an important matter quite apart from its relations with teaching. Let us turn to that part of preparation for teaching which has to do with other things than scholarship. I refer to the study of pedagogy, a subject to which graduate students have, I think, given less earnest heed than it deserves. Pedagogy has, of course, been discredited by quacks, yet its really scholarly advocates make out a very strong case,—almost an unanswerable case so far as concerns teaching in institutions below the college grade. When pedagogy offers anything as a substitute for scholarship, we certainly want none of it. So far as it professes to be a complete science of education or a complete code of rules and methods of teaching, we shall view it with suspicion. Have we a right, therefore, to dismiss all study of education as unprofitable? Certainly we have not. The best instructors in teaching—for example, those at this university—are so far from proposing to substitute anything for scholarship that they require a very considerable degree of scholarship as a requirement for admission to their courses. They hold that pedagogy is at best the handmaid of learning, an aid in the imparting of instruction. When professors of education discard all unwarrantable claims, shall we not meet them half-way? Will not a knowledge of the experience of others save the beginner in teaching more time and labor than he expends in the acquisition of that knowledge?

Perhaps the chief criticism to be made on instruction in education is that at present it fails to cover an important part of its legitimate field. Where can one obtain instruction in the calling of the college professor? Who will give a course on the comparative merits of lectures and discussions as means of instruction, on the question how can thesis work be made more profitable to the student and less deadening to the instructor, on the matter of individual attention to pupils, and, above all else, on the art of college lecturing? What are the rules for constructing a college lecture? Is the professor a reservoir of

knowledge from which the stream is to be turned on for a period three times a week, or should he use his lecture hours in awakening interest in the subject, in directing the students' work, in giving coherence to their acquisitions of knowledge, in guiding them to safe conclusions? Is the lecturer to provide himself a pack of notes from which to read for an hour at a time, cutting off at the stroke of the bell, or should a university lecture be a coherent whole,—as much so as a popular address? What should be the relations between lectures and collateral reading? How can libraries best be utilized? How can the best results be obtained from limited library facilities? What is the value of lecture courses the whole contents of which can be found in easily accessible books? These and scores of other questions must arise whenever one gives any thought at all to the problems of college instruction. Why should they not receive the attention of teachers of education? The lack of instruction in these matters is probably due to the fact that college professors are more interested in teaching their subjects than in telling how they should be taught, while mere observers hesitate to lay down rules. The fact remains that the highest department of instruction is a field in which the beginner has no guide save his wits and observation.

In other ways, of which I should like to speak, graduate students may prepare for teaching. More, perhaps, than any others they must fight the temptation to selfishness which besets a student's life. They are to be workers for the community; they must, therefore, keep alive some activities besides the mere absorbing of knowledge. Especially must they guard against the feeling of intellectual superiority with which scholars so often shut themselves off from the rest of the world. Into the questions here suggested, however, we must not go. After all, they concern matters in which each man must work out his own salvation.

In this paper I have aimed to point out that he who would teach must be, first of all, a scholar, but that scholars need not despise the study of education. This study, moreover, should be extended to cover the college grade. Finally, we should recognize the value to the community of scholars who do not teach, and should increase their opportunities for service.

Discussion. MR. C. ROBERT GASTON, of Cornell.—Besides the considerations already brought forward on this subject, it seems to me that the time-element in graduate study is important. Shall the Senior, weighing the question of graduate work, decide to pursue specialized study immediately after graduation? Shall he deem it better to teach for a time, to work for a time in steady reading and writing if he is to be a man of letters, to carry on ordinary scientific work in some commercial concern if he is to be a man of science? If he is to be a teacher, shall he try to obtain an assistantship or a fellowship which entails some teaching, so that he may pursue specialized study at the same time that he is teaching? Practical, personal elements may determine his ultimate decision, yet the third method of synchronous graduate work and teaching appears to me the most beneficial. Ought not our universities to establish more assistantships and tutorships; make all their fellowships entail some teaching?

PROFESSOR PAUL H. HANUS, of Harvard University.—The wording of this topic seems to me unfortunate. It seems to assume that there is an antagonism between scholarship and the training of the teacher for his profession. Such an antagonism does not and cannot exist. Scholarship is the fundamental and indispensable requisite for efficiency as a teacher or director of teachers. On the other hand, it is true that something in addition to scholarship is also indispensable to early efficiency and steadily increasing growth as a teacher or supervising officer. That something is a combination of good personal qualities and a *trained insight into and interest in educational questions*, together with *the ability to teach*. In other words, we may expect every university man or woman who aims to enter the teaching profession to make the most of his or her personal qualities, and to acquire educational insight, interest, and power through appropriate professional training. Otherwise his conception of the scope and meaning of his profession is likely to be limited to instruction in his own subject,—to the duties of his own class-room; and these duties, in turn, are in danger of being narrowly interpreted to mean devotion to a routine consisting of the assignment and hearing of lessons. Unless a teacher has seriously considered the whole complex problem of an appropriate modern education for children and youth, his views on the meaning of education are thus likely to be superficial and narrow; or, what is even more common, he will have no views at all on the fundamental problems of his profession. This want of professional training is responsible for so many routine teachers; for so many of those mechanical workers who are in the various stages of the deadening disease which has been fitly called “pedagogical cramp;” a disease that inevitably renders their work wooden and lifeless because it lacks the inspiring influence of a constantly expanding and deepening insight into the significance of that work, and the interest born of such an insight. Such interest is the only means of guarding against the insidious dis-

ease referred to above—the only means of maintaining life instead of mechanism in the teacher's daily work as the years go by.

Such insight and interest may be acquired through the critical study of good educational literature, of which the supply is now considerable and constantly increasing; through the history of education; through the study of contemporary schools and school systems in their organization and work. And the art of teaching on the basis of such insight and interest may be acquired through practice teaching under intelligent guidance; and under conditions that impose full responsibility on the student-teacher for the progress of a class in some one subject, during a sufficiently long period.

Professor White, in his address last night, expressed some doubt about the possibility of teaching the art of teaching. I have no doubt whatever about it. *I know* it can be done, for we do it here, every year. Of course, all persons can not become equally proficient in the art of teaching any more than they can in any other art; nor can the art of teaching be learned without actual teaching. But, given moderate to good natural aptitude, we find it quite possible to teach how to teach, as follows: we require every student without experience to teach a class continuously in some one subject for about half a year, in one of the schools open to us for this purpose in four neighboring cities. We inspect each student's teaching at least once a week, and take all possible pains to help him to acquire good teaching habits and to avoid bad ones. Under such circumstances the gradual acquisition of the art of teaching under instruction *can be seen*.

But learning how to teach is only one phase of the university study of education. The difficult and comprehensive problems involved in the organization and administration of schools and school systems; the planning of courses of study; the determination of educational values; the direction of intelligent experiments in the field of methods; questions of school hygiene; the relations of psychology and sociology to educational theory and practice; and a host of contemporary problems growing out of the widespread endeavor to enrich, unify, and systematize American education from the kindergarten to the university,—all these problems and questions offer to graduates of experience a wide field for the most earnest, careful, and prolonged study. Nor must it be assumed that such study is of interest and value only to those who expect to rise in the teaching profession. Of course, it is not to be expected that graduates who do not plan to enter or to remain in the teaching profession will study these questions and problems to the same extent and in the same detail as those who do. But education as a function of society may well occupy some of the time and attention of every cultivated young man or woman, just as economics, or government, or history itself—the whole range of social studies—may well enter more or less completely into the programme of studies which we regard as essential to the equipment of a member of the

socially superior and directing classes in our municipal, state, and national life. And I can assure you, ladies and gentlemen, that a serious study of the educational problems referred to above will demand all the scholarship, all the ability, and all the devotion you can command, quite as much as the serious study of the problems of philology, abstract science, or philosophy; and you could render no more conspicuous service to your generation than to study these problems yourselves and promote the study of them by others.

THE MASTER'S DEGREE: IS IT OBSOLETE?

ELEANOR OLIVIA BROWNELL.

(Barnard.)

Before taking up the subject of the master's degree I should like to protest against the name of the topic as it stands in the programme. The question, "Is it obsolete?" seems as unfortunate as though a physician, when he has been called in by a sick man, should ask, "Are you dead?" Let us, therefore, change the query to "What is its value?" So that we may not kill the master's degree before we have fairly begun.

The degree of Bachelor of Arts represents an education which is of necessity general in its scope,—an education which should fit one for life. It represents very little technical detail, and, as a general rule, little more than a smattering of many subjects. It teaches one how to work, how to read, and how to think; so that at the end of a college course the holder of the B.A. finds himself just ready to do good work.

The doctor's degree, on the other hand, stands for a specialization in work so minute that the holder of it shall be the one above all others who is invaluable for doing just that one thing, and that only. He has narrowed his horizon to such a small circumference that he is able to perceive with clear vision all things within that circle. This is the meaning of the Ph.D.

Between these two degrees, the B.A., standing for general knowledge, and the Ph.D., standing for specialization, there is need for

another degree which shall represent work more advanced than that of the B.A., and yet less specialized than that of the Ph.D. For this we have the M.A. It seems curiously fitting that this plea for the recognition of the value of the master's degree should be made in one of the halls of the university which has done most to increase that value.

In 1872 Harvard ceased to give the M.A. in course, and required a definite course of work to be completed with credit before it would confer the degree upon an applicant. I have merely to refer you to the statistics which Dr. White gave last night to show the rapid increase in Harvard of the value of the M.A. during the last twenty-five years. This, I think, is a valid proof of the advisability of giving the degree *pro meritis*. There is, however, need that this degree may be conferred *honoris causa*. It should be used in this way, only with the greatest discretion, to honor a man who is highly cultured and who has proved of what metal he is made in certain fields,—say in that of literature or of politics; for I think it is not too much to hope that we may some day have politicians who shall be worthy of this degree. Again, I have only to refer to Harvard to show how admirably this method is working there.

Against this, however, I should like to read some objections of Professor W. F. Magie, of Princeton University. He says,—

"It often seems to me that the Master of Arts degree should have been left the (almost) purely formal degree which it was twenty years ago; that our efforts to 'make it mean something' have been misdirected. It would take me too long to argue this, but my outline would be this:

"1. Historically—here and in England—it is a formal degree, being a recognition by one's Alma Mater of his continuance in academic or professional life.

"2. The men that are led to spend one or two years in special study for it are either kept from their professional study for a useless honor, and so are not making the proper use of their time, or they pick up their degree on their way towards the Ph.D.

"3. It tends to lessen the importance of the Ph.D., which I should like to see the only degree given for advanced graduate study."

Against Professor Magie's first statement I can say nothing, but ink the last two sections are open to criticism. There seems no

valid reason why it should keep a man from his professional study, as, practically, only those would care to have the degree whose professional line of work was parallel to the work required to attain the degree. It would be very unusual for a man who wished to take a course in law or medicine to stop first to secure an M.A. If he did I think it would only tend to make him eventually a better doctor or lawyer. That the degree is a "useless honor" does not seem possible; for if it is an "honor" it cannot be useless. As to picking up the degree on the way towards the Ph.D., it is little done, for by far the majority of answers that I received from the authorities of the different colleges to whom I wrote stated that the Ph.D. was considered to include the M.A., and therefore an applicant for the doctorate rarely stopped to take the lower degree unless for some reason of sentiment.

Professor Magie's third statement is that the M.A. tends to lessen the importance of the Ph.D., whereas I should maintain the direct opposite; because by having the M.A. as a goal towards which to direct their work, many graduate students would aim for that degree, who could not well stand being pushed so far along the line of specialization as is necessary for the Ph.D., and who yet might attempt it were there no other degree to crown their efforts. This would in the course of time necessarily lower the Ph.D.; so that if it could do no more than prevent this I am sure we should all approve the use of the M.A. as an honorable degree for graduate work.

There is also the hope that now that most secondary schools require their teachers to hold a B.A., even so in a few years more they may demand teachers who shall have done some graduate work, for which work the M.A. will be a suitable guarantee.

I should therefore recommend that it be recorded as the sense of this Federation that the master's degree shall be given *pro meritis*, with an occasional exception, to honor well-recognized ability and culture; that the requirements shall be a B.A. from some college of good standing, at least one year of graduate work to be accomplished with high credit, and a thesis of, say, five thousand words on a subject to be approved by the instructor.

Discussion. PROFESSOR WRIGHT, Dean of the Graduate School of Harvard University.—The degree of Master of Arts has had a varied history in the United States, and especially at this university. There are or have been, in fact, at least six classes of Masters of Arts at Harvard University: holders of the degree (1) *honoris causa*; (2) *ad eundem*; (3) in course,—that is, bachelors of three or more years' standing, on the payment of a fee; (4) with a professional degree, but without additional study or residence; (5) with the degree of Doctor of Philosophy; and (6) *pro meritis*, conferred after residence of at least one year and public examination upon candidates approved by the Faculty of Arts and Sciences. At the present time, however, only two kinds of Masters of Arts are created,—honorary A.M.'s, and A.M.'s *pro meritis*. While much may be said in favor of ceasing to confer the master's degree as an honorary degree, I think it highly improbable that university authorities throughout the country would approve of such a proposition. Many colleges and universities desire from time to time to admit to their fellowship and membership men of distinction who are not graduates, and the traditional way of doing this is to confer an honorary degree upon these persons. The use of the degree of Master of Arts for this purpose is one highly prized, and much may be said in favor of it; it is hardly likely to be given up.

The suggestion that a thesis should be required of all candidates for the degree of Master of Arts would, in my opinion, be an unnecessary one for candidates from this university. Theses are required in nearly all courses of instruction pursued by graduate students, and the prescription of a single thesis would be superfluous.

In the opinion of the authorities of this university, the degree of Master of Arts *pro meritis* should be conferred only upon Bachelors of Arts, or other candidates admitted to equivalent standing, who have devoted their entire time for at least one year to study of a highly specialized and advanced character, and have performed their work with high credit,—all their work to be done in residence at the university.

GRADUATE STUDY IN EUROPEAN UNIVERSITIES.

England and France. MR. C. H. C. WRIGHT, of Harvard.—If migration from one university to another is a good thing, migration from one country to another is even better. But the tendency to go to Germany, although now possibly it is diminishing, is too great; to go there is a mere continuation of our American tendencies. For many things Germany is indispensable, so far as accurate scholarship or pure science is concerned, and to Germany people will throng so long as the desire lasts to have out of the way things in the electives of our smaller colleges, and Wichita or Waukesha prefer electives in Egyptian to Greek and phonetics to Latin; but when college presidents realize

that a dissection of the clepsidra is not necessary to interest freshmen in Sophocles and Euripides, any more than clock-making is necessary for "I stood on the bridge at midnight," they may be inclined to look for teachers among those who have studied the essence as well as the accidents of a literature. The truth of the matter is, as we know, that there are not enough first-class universities in the country to fill the demand from Ph.D.'s in search of a position. Consequently, many of them are obliged to accept positions in smaller institutions. There the Ph.D. is at a disadvantage because he has spent much of his time in some obscure field important for the extension of scholarship, but useless for the average American, who, in his desire for speedy money-making, can ill afford to spend four years upon the ordinary subjects of a rounded education. Even here at Harvard we find Ph.D.'s ignominiously working the treadmill of freshman French and German. What must it be in a small place where libraries are poor and graduate students have not had a proper high-school training. Would it not therefore be sensible for some of us to recognize this state of affairs, and, while not losing sight of our intellectual ambitions, at least pay some attention to the portion of education of most value to the average American undergraduate whose existence really supplies us with our bread and butter. Such men, I think, may occasionally find it profitable to look elsewhere than to Germany, and they may often discover that, without detriment to originality of scholarship, chances for a more humane training are to be found in France or in England.

A disadvantage in England is that one does not learn a new language; in Germany, that one must learn a difficult language. In this respect France has the advantage in that the language is new, but is not difficult. A disadvantage in both England and France is that after a long period of training, the time for which may deter many, one may emerge, at least in England, with no more imposing degree than he had before, and this may seem disheartening to those who appreciate the effect of a title in a country where the Ph.D. was becoming a formidable rival for generals and colonels until the war with Spain brought a new source of wealth to the military nomenclature. A graduate student in England, after four years hard study, may find himself to the outward eye only an A.B., as before, and in France the higher degrees presuppose earlier ones, for which the usual American training hardly fits one. But these two objections are now partly cancelled by the new research degree at Oxford, and the doctorat de l'université in France, which is open without formalities. In the matter of expense England is at a disadvantage. If one wishes to get all the advantages of Oxford and Cambridge he must pass the examinations which are necessary to matriculation, and then he is permitted to enter into the life of the place, as he will desire to do, and that is fairly expensive; otherwise he is not permitted to share the advantages of tutoring, etc., and, in fact, knows little more of Oxford than the average summer tourist. In

France he may have all the advantages and live on any scale of expense from the cook-shop up.

What kind of men may with advantage go to England or France? Primarily those, I should say, whose interests are towards language and literature as opposed to the sciences; although Cambridge boasts of its mathematical training and its wranglers. England and France excel in the training in the logical presentation of thought. An Oxford man can generally say what he wants in better English than the American Ph.D., and a Frenchman, at least, can say what he does know so that the reader can understand. In Paris there is a broader field in some respects than in England. The student is better able to use his time, and is more free and independent. He will find opportunities for as advanced work in almost as many subjects as in Germany. He can make his period of study long or short. If Romance philology is his specialty, he will be getting it in the proper place; there is nothing more preposterous than to go to Germany to study French. On the other hand, Oxford has the advantage of a broad humanity if the student's interest is more particularly in classics. If he has a little more leisure, and possibly a little more money, to devote to his purposes, if he is able to keep away the mildew that comes on those who stay in the university too long, if he is content to know less about paleography and more about Plato, realizing that he is helping along the interests of the classics quite as much by teaching Greek thought to future lawyers and journalists of America as by doing seminary work with future pedagogues, let him go to Oxford. And if he does go to Oxford, whatever others may think of him, he himself is likely to be possibly as wise and certainly a much happier man.

Germany. MR. FAULKLAND LEWIS, of Pennsylvania.—The progress of American scholarship has changed in these last years the attitude of the graduate student towards the question of graduate work on his part in Germany. The report of the Committee on Migration shows that out of two hundred and twenty answers to the question "Have you pursued graduate study in Germany?" one hundred and ninety-four were in the negative, a fact surprising to the speaker. There seem to be three classes of graduate students now that are not pursuing work abroad,—(1) those who have no particular inclination in that direction, (2) those whose graduate work does not directly demand it, and (3) those who cannot afford it. The speaker would have been glad to have seen another question asked by the Committee on Migration,—“Would you pursue graduate work abroad if the opportunity offered?”

The time of pursuing graduate work in Germany should be carefully chosen. In general, it would seem advisable to commence graduate work in America, to work one year in Germany, and to return to take the American Ph.D. Acquaintance with the German ideal and methods of scholarship is valuable, even if we do not feel the necessity of adopting them in toto, but

rather of adapting them to American conditions. It is hardly necessary to emphasize the value of close acquaintance with the Old World culture. German thoroughness in academic work, associated with American progressive methods and executive ability, seem to the speaker the fortunate tendency of present-day American graduate training.

THE RELATION OF GRADUATE TO UNDER-GRADUATE COURSES.

EMILY FOGG.

(Bryn Mawr.)

The increase in the demand for advanced training, the expansion of existing universities, and the remarkable growth of new institutions have brought forward the question of the relation of graduate to undergraduate courses as a new problem for the educational world to solve. In providing for graduate students the colleges are confronted by a question of immediate expediency due to the fact that many students who have completed an undergraduate course are inadequately prepared to do advanced work. The needs of such students always require practical attention. This paper, while recognizing this problem, will deal rather with the conditions for advanced work that now exist and with the opportunities to improve graduate and undergraduate training in certain directions. It will be necessary, first, to consider the existing relation of graduate to undergraduate courses.

The necessity of defining the requirements and preparation necessary for the higher degrees, and the growing recognition of the essential differences between graduate and undergraduate work have tended to unify the organization of graduate schools. While in the earlier days graduate courses were controlled to a large extent by the heads of departments, who received graduate students into undergraduate courses or gave them private instruction, recent changes tend to differentiate the graduate from the undergraduate school. Some graduate departments are organized as separate schools with deans. Others are separate divisions of the regular colleges. In every case the work

is controlled by a committee of the faculty or a graduate council, and, while the same professors conduct both graduate and undergraduate courses, the faculty of the graduate school has usually a separate organization.

Although the administration of graduate work is thus distinctly differentiated from undergraduate work, graduate courses are variously classified. It is possible to distinguish in general two methods: the first, in which graduate courses are totally distinct from undergraduate courses, the system introduced by Johns Hopkins; and the second, where there is a gradual transition, by means of intermediate courses in which both graduate and undergraduates are provided for, a method which has been most definitely outlined by Harvard. In considering these two methods our interest is concerned rather with the theory upon which the classification is based than upon its practical application, as variations will be found among the different colleges making use of either of the two methods.

The colleges which make use of the first method are Johns Hopkins University, the University of Pennsylvania, Bryn Mawr, the University of California, the University of Minnesota, the University of Missouri, Western Reserve University, and Columbia University. It must be noted that several of these universities have just organized graduate departments and are making an especial effort to give a high character to their graduate work. By this method of classification, as has been said, graduate courses have been entirely separated from undergraduate courses. Undergraduates are never permitted to take graduate courses. The graduate student is one who has received his A.B. degree and is prepared to undertake advanced work. The danger of graduate students entering courses for which they have not received the prerequisite training is obviated by giving the instructor power to exclude such students from his classes. Where undergraduate courses are taken by graduate students, they seldom count for a degree, and if this is permitted, restrictions are usually attached. Columbia University, for instance, offers certain courses for seniors. These courses can be taken by graduate students, but if they are to count for the Ph.D. degree, the student must do additional work.

Harvard University has given the most definite classification of the second method. Courses are divided into three classes,—(1) primarily for undergraduates; (2) open to graduates and undergraduates; (3) primarily for graduates. Entrance to any course depends upon the student's ability to satisfy the instructor that he has sufficient qualifications to do the work. This method has the advantage of elasticity. It provides for the needs of students as individuals, and is especially valuable where the system of electives is very free. Experience shows that in a majority of cases the courses offered in the second group are selected. The rest of the universities making use of this system make distinctions similar to those outlined by Harvard. However, "primarily for graduates" does not mean that undergraduates may not enter these courses, in case they can obtain the permission of the instructor.

At the University of Wisconsin required courses are primarily for undergraduates; elective courses are open to graduates and undergraduates; while courses primarily for graduates are confined to research work.

At the University of Chicago the classification of courses is ordinarily junior college, senior college, and graduate courses. For those not familiar with the arrangement at Chicago it should be stated that the junior college covers the first two years of the college course and the senior college the last two years. Senior college courses are also classed as graduate courses, thus forming an intermediate group. Graduate courses are either primarily for graduates or open to seniors. Seminaries are never open to seniors. Thus at Chicago a distinct line is drawn between the junior and senior colleges, while the work of the senior college is intended to merge into graduate work. Dean Judson writes that the University of Chicago is not in sympathy with the policy of making the graduate school entirely distinct.

Cornell University takes the same stand, and states that "no sharp line can be drawn separating classes." Dean White writes that earlier they "had courses specially for graduates, but found that the line could not be drawn so definitely; the test is the kind of work done." Like Columbia, and differing from Chicago, Cornell favors

the senior year. There are courses for sophomores, juniors, and seniors, but graduate courses are open only to seniors. That they are open to seniors is due to the fact that Cornell requires a thesis for the A.B. degree and prepares students in their senior year to do some research work. Contrary to the usual custom, seminaries are sometimes open to seniors, but in all cases the principle of admission is qualification and special attainments.

Every institution offering graduate work, with the exception of Yale,—and the reason for this exception can easily be traced to the recent admission of women,—permits, and, in fact, encourages, the graduate student who is not prepared to do advanced work to enter undergraduate courses.

Thus it is evident that the main difference between these two methods of classification lies in the fact that one entirely excludes undergraduates from graduate courses; the other admits them under certain conditions. The question of the relation of graduate to undergraduate work resolves itself, therefore, into the question of excluding undergraduates from graduate work. We shall now consider briefly two questions,—(1) Shall undergraduates be excluded from graduate courses? and (2) What preparation can be demanded for graduate work?

Before excluding undergraduates from graduate courses, we must consider the way in which the course is conducted. If the work is offered in the form of lectures and the material to be used in the course has been definitely determined upon, the status of the student is not likely to affect the character of the material presented, nor does the instructor have an opportunity to measure the capacity of his students. When class work or prescribed reading is required, the difficulties are more apparent. Even though both graduates and undergraduates are admitted on the basis of prerequisites, the attitude of these students towards their work and the amount of time which they are able to give to the subject must be different. The graduate student pursues the course with the definite end of mastering the subject, while the undergraduate, though he, too, may have this end in view, takes it as one among the many required for his A.B. degree. One plans to devote his entire time to the subject, the

other has to meet the obligations of an undergraduate. The very fact that for a graduate student a course is a nucleus about which all work is concentrated requires that it should have different treatment. The work must be less formal ; system and discipline no longer need to be taught ; the student comes into closer relations with his instructors ; he values and makes use of the private laboratories and seminar libraries. All these things, but in particular the fact that graduate students are to a large degree made up of teachers, make it especially desirable that they should be separated from undergraduates. The training which they have received brings them back to college work on a different footing.

In some cases an undergraduate is fully prepared to take advanced work, but where students exhaust the courses open to undergraduates, it frequently means that there has been specialization too early in the college course. In order that specialization should not begin too soon, the professor in charge should have a full knowledge of a student's needs. This is frequently impossible in a large institution. It is, therefore, important that the opportunity for too great specialization should be withheld. If the same instructor conducts both graduate and undergraduate courses, there will be a tendency to introduce graduate methods into advanced undergraduate work, in so far as the students are ready to receive them. The tendency always is to adapt the work to the class, to the advantage of graduates or undergraduates, according to which is favored. In some cases at Bryn Mawr practically graduate courses have been given as post-major courses because the students were able to undertake the work. This can be done in undergraduate work without allowing undergraduates to enter graduate courses. The college work can be broadened and strengthened by turning attention to the undergraduate courses. Graduate courses should tend to raise the character of undergraduate courses instead of assimilating graduate to undergraduate work. It is suggestive that at Cornell there are two kinds of seminaries in some departments, one for seniors and one for graduates, showing that the seminar method can be used to advantage for undergraduates, but in a different form from that utilized for graduates.

A difficulty that arises from the separation of graduate and under-

graduate courses is the question of the faculty in charge. Too great a tendency to emphasize the graduate school might draw away the best men and weaken undergraduate work. It is improbable that this will take place. The two kinds of work can be advantageously combined, and it is undoubtedly true that an instructor receives a stimulus from adding graduate courses to his work.

The main objection that is generally given to the separation of graduate courses from undergraduate courses is the well-known fact that many undergraduate students are much better able to undertake advanced work than the graduate student. This rather shows how necessary it is that there should be some understanding of what fittingly constitutes a graduate student, and brings us to our second question for consideration—the preparation for graduate work. It is evident that holding an A.B. degree by no means signifies that a student is prepared to begin advanced work. In the past, college work was planned to give culture and a better equipment for any career in life. Every effort was made to arrange the course of study so as to give a well-rounded education. Since a college education has become a matter of course, and the necessity of specialization has been recognized, new theories have arisen; the required work has been lessened in amount and the opportunities for choice increased. This gives preparation for graduate work along the lines on which specialization has taken place, but if carried too far means a very one-sided education. Two plans which have been adopted by various colleges may result in combining the proper preparation for graduate work with an adequate general education, and may suggest the means by which graduate work may be differentiated from undergraduate work. The first is the group system; the second, the organization, under the university plan, of separate schools.

The group system requires that the student choose a major and a minor subject at the beginning of his course or later; the two subjects to be properly related. When choosing electives a certain amount of time must be devoted to these group subjects; there is some required work in other lines, and the rest of the time is devoted to free electives. It may be noted that this gives opportunity for further choice of the major and minor subjects. The simplest method of

valuing these courses is the number of hours given to each subject. When a student whose preparatory work has been planned in this way undertakes graduate work, the proper sequence is maintained.

The system of organizing schools is somewhat on the same order. Under the university, schools of pure science, political science, of economics and history, are organized, and the student entering one of them is obliged to follow a somewhat prescribed course which leads to a certain well-developed specialization on the subject. This method also provides for a solid basis for graduate work.

The necessity of a general education combined with this solid basis is not, however, always appreciated. This may be due to the fact that the correlation of subjects is not always apparent. A graduate student whose undergraduate work has been wisely chosen finds a good general education of great value. There are points at which other subjects bear upon his own subject, but the concentration necessary for graduate work makes it impossible to extend his study into other fields. Philosophy is valuable for any scholarly work, while training in English is indispensable if a student wishes to present the results of his work in a satisfactory form. Of the allied subjects none is of more importance than modern languages. The work of German scholars can never be overlooked, and French is used too frequently as a medium of expression to be neglected. Ignorance of either French or German hampers any graduate student. A knowledge of the two languages is necessary for science, for history, for the classics. More than an ordinary acquaintance is required, rather a ready facility to make constant use of them. Few colleges place both French and German among the required subjects for a first degree. Only one college—Bryn Mawr—tests seniors by an oral examination as to their ability to read the languages at sight.

It is noticeable in all the programmes of graduate work that there is a difference in the treatment of the preparation for graduate work by the different departments. The question naturally arises, Are not some subjects better adapted than others to a definite classification? In mathematics and the pure sciences the steps of progress are sufficiently outlined, and each forward movement so dependent upon what has gone before that prerequisites become necessary for either

graduate or undergraduate work. In the universities where certain graduate courses are open to undergraduates, the proportion of science courses thus opened is small. In the languages, the purely linguistic, the philological, and the detailed study is always graduate work. The classics,—one of the oldest and most highly developed of college subjects,—as a rule, have purely graduate work distinctly marked off from undergraduate work. If we turn to the social sciences we find that the real difficulty arises. The idea still prevails to some extent that because the subjects of English, history, political science, are closely connected with human interests, any student—no matter what the training—can enter a course and obtain good results. Some results are certainly possible, but the recent organization of schools of history and political science at the University of Wisconsin and Columbia University, and the arrangement of courses at other universities, show a tendency to adopt gradations similar to the exact sciences. The adaptation of these subjects to a system of more or less defined prerequisites is of great interest to our main question.

There is always danger in drawing hard and fast lines. The important question is, What organization and classification make it possible for all students—whether graduates or undergraduates—to get the most out of their work? In view of recent development we are still in the experimental stage. We can only arrive at these tentative conclusions, judging by the tendencies that are apparent.

1. That graduate courses should stand for professional training and specialization, and should be differentiated from undergraduate work in administration and classification. Such courses should presuppose definite specialization in undergraduate work. Undergraduates should never be admitted to graduate courses.

2. That undergraduate work should be so systematized as to provide an adequate general education and sufficient specialization to give system and training for research work, should graduate study be pursued.

3. That a reading knowledge of French and German should be required for an A.B. degree.

4. That when it is desirable for undergraduates to be trained in advanced methods, it should be done in courses not primarily for graduates.

5. That advanced courses of a general interest should be open to students having an A.B. degree and undergraduates, but should rank as undergraduate courses. No course to which an undergraduate student is admitted should count towards a Ph.D. degree without additional work. Such courses might be counted towards the culture degree, the A.M. degree.

6. Finally, the graduate student should be primarily one who is doing graduate work as defined above. Admittance to the graduate school should be based upon the character of the preceding training, not upon holding an A.B. degree.

Discussion. MR. PAUL P. INGHAM, of Michigan.—The object of undergraduate work is general training. The object of graduate work is specialization. If the objects are different the methods also must be different. We must bear in mind that the entire educational system is one of progress. Its key-word is evolution. From its earliest to its latest stages it should advance without a break such as often occurs, for example, between the grammar and high-school, the high-school and college. In the early stages the courses are broadly outlined, but as we advance they narrow gradually. Fewer subjects are taken up, but the work in these is done more thoroughly. Accuracy in detail becomes a more important feature. In the undergraduate work the teacher is more prominent. He directs the work from day to day. He is taken more or less as an authority. In graduate work it is really the student that is the more prominent. The teacher becomes a guide to point out the best and soundest methods of work ; to suggest paths for research ; to assist and inspire the student when perplexed. This radical change, however, should not be brought about suddenly. Early in his course the undergraduate student should be made to rely to a certain extent upon himself. It is this fact that leads me to approve most heartily of the combination of methods that has been adopted by most institutions, even where graduate work is not offered. This has been brought about by establishing a system of electives which enable students who have reached the junior or senior year to pursue further certain studies in which they are especially interested. This elective work is of the utmost importance for those who propose to continue their studies in the graduate department, yet, unless the selections are wisely made, it is apt to check the best development of the student. We need men who are not only masters of their subjects, but who at the same time are broad-minded and practical ; or, as Professor Hinsdale puts it, "broad men sharpened to a point." In view of this fact, the undergraduate courses should cover as wide a field of knowledge as possible. Let the special line which

one is to follow be decided upon as early as the end of the sophomore year. This, however, is too early to commence specializing in the strict sense of the term. The elections should still be broad, though they must, of course, bear more or less directly upon the chosen specialty. This will enable the student to get a sound foundation, and at the same time to enter with ease upon the work of the graduate school.

The question has sometimes been raised as to whether the graduate courses should be open to election by undergraduates. The present system of electives would seem to make it impossible to draw the line sharply. In every class there are certain students of more than ordinary ability in certain directions, and so long as it is possible to elect courses independently of advice there are bound to be undergraduates who are quite as capable of undertaking certain graduate work as the graduates themselves. I am of the opinion however, that it would be better for these to keep on for a longer period in work which would tend to broaden them, making their elections, of course, with special reference to the chosen subject or subjects. There is no doubt, I think, that the graduate student derives the greatest benefit from those courses in which he is associated with graduates only.

MR. HENRY BARRETT LEARNED, of Harvard.—Miss Fogg's paper and the discussion growing out of it have seemed to give ground for this generalization: Western universities are attempting to draw more rigid distinctions than the older institutions between graduate and undergraduate work. This has its good and its bad side. Organization and fine distinctions are of the very essence of careful work, be it instruction, investigation, study, administration: these are signs of the times, and the *Zeitgeist* is specially busy in the West. But rigidity may be dangerous as a result of forced organization. Graduate work is comparatively new; the question of where to draw sharp distinctions is difficult to answer at this stage. The relations of graduate to undergraduate work do need great consideration. Something was said—and very significantly said—of graduate work as a development. Systems of education are of course a growth; relations between younger and older students, if given a chance, come about as imperceptibly as they do surely. Though it may not be logical, or seemingly quite natural, is it not true that the distinction between graduate and undergraduate work is clearest near the top? At present the really distinctive feature of advanced work is the *seminary*. Here research work is set forth. In the seminary only the maturest student should find admission. Let no undergraduate be admitted. Here opportunity is given for a student to interpret before a few fairly mature minds some intricate or strictly technical theme. It is not a new fact that most of us are to be interpreters, for creative work is rare. The fact has been cited several times in this convention. We are to be teachers. Some of us will gain distinction by research and the discoveries which make men famous,

and add to the fields of knowledge. Not that I would have decreased the effort towards research and discovery on our parts. But I venture to think that side by side with the seminary work, the advanced student will be encouraged more and more towards power of interpretation. Perhaps a *docent* system will be developed; not a German system, but one growing out of our needs in American institutions, allowing the teaching faculty to be put to work before the Ph.D. is granted. A third thought is this: rigid distinctions do not always aid towards the best education. There is no harm for men, graduates and undergraduates, to sit side by side in the lecture-room. It is very unfortunate for the mature man to feel ill at ease or imposed upon because he must attend in a large room full of younger men. Education is not an end, either in the undergraduate world or in the graduate school. It is a means aiding towards a variety of things, perhaps most of all towards a fuller and more abundant life in this world.

WHAT CAN THE FEDERATION DO TO UNIFY THE INTERESTS OF LOCAL CLUBS?*

WENDELL M. STRONG.

(Yale.)

Whatever the object for which the Federation was founded, one of its greatest works has been to bring the students from different universities into contact with each other. Through this the feeling that the interests and aims of graduate students are everywhere the same has been strengthened. The meetings of the Federation have demonstrated to us that the graduate students of the country form one body. While we may read papers and pass resolutions, it is in the feeling of unity which the Federation may engender that our greatest opportunity lies. Nothing else which we can do could so promote this feeling as the fellowship of the annual meeting of the Federation; the direct benefits of this are, however, limited to the few; the indirect are what the few from each university can carry home to their fellow-students.

* Mr. Strong furnished only a synopsis of his paper, and it cannot, therefore, be printed in full.

To supplement what is already done I have but two expedients to mention :—

1. The method of circular letters might be adopted to carry news of each club to all the other clubs. Circular letters are, however, even where the writers are intimate friends, usually a failure. I think we can hope for no good from them.

2. If each club makes the members of the other clubs feel that it would be glad to receive and entertain any one of them, perhaps a little good might be accomplished. We should feel free to hunt up and be hospitably received by the members of the graduate club when we visit a strange institution. And members of clubs in the same districts should get acquainted with each other when opportunity offers.

I should conclude that it is to the harmony and good fellowship of the annual meeting that we must look for all which is essential in the work of bringing the local clubs into closer bonds of union.

Discussion. MR. W. J. TRUESDALE, of Western Reserve.—The question, What can the Federation do to unify the interests of the local clubs? is intimately related to the vitality and welfare of our organization. And yet it is a question very difficult to answer. The difficulty lies in the looseness of the bond between the Federation and the local clubs, nor would any solution of the matter be feasible at present that would propose any considerable alteration of those relations. There is little that the Federation as at present constituted can do directly towards the unification of widely separated and variously situated clubs; certainly the time has not come for any detailed programme. All that can be hoped for now is such a unification as shall result indirectly from a well-defined consciousness of kindred aims. The Federation can promote that consciousness by being the nucleus about which shall cluster the organized opinions, as embodied in the reports, resolutions, and proceedings of the convention, of the several local clubs. Let a definite aim be adopted and unity will result from the concert of action in promoting that aim. As to proper aims, the following may be suggested:—

- (1) Recognizing that graduate study is a young institution in the United States, and that with a single exception graduate instruction is given in all universities by the same corps of professors as also give undergraduate courses, and realizing that in consequence graduate work sustains in most colleges and universities a purely supplementary, if indeed not subordinate,

relation to other work, a proper ground for united action through the federation becomes the seeking by all means to secure for graduate work a status commensurate with its dignity. Much has already been accomplished by this Federation, and we have certainly learned that we need have no hesitation in addressing our communications, perhaps even more directly than heretofore, to the governing boards of universities. In the making common cause of our demands for high standards and rigid requirements of scholarship, we find the *raison d'être* of our organization.

(2) Aim to secure for the annual convention of the Federation the greatest publicity possible. Might it not be a good idea to hold our sessions at the same time and place as those of such societies as the American Historical Society, or some kindred organization? That would permit of the arrangement of joint programmes in part, it would make possible an easy promotion of inter-acquaintance, and would attract more attention to the work and ideas of graduate students. It would help both the association with which we should meet and ourselves in securing railroad rates and such other accommodations as are necessary. The experiment is at least worth a trial.

Report of the Committee on Thesis Subjects, Edmund B. Huey, of Clark, Chairman.—The committee offered the following recommendations :

(1) That a committee of three be appointed to carefully investigate the matter in so far as it applies to American universities only, and that they report what seems the most feasible plan at the next meeting of the Federation. That the editor-in-chief of the *Handbook* be a member but not chairman of this committee.

(2) As a tentative measure, for this year only, the editor-in-chief of the *Handbook* be instructed, as soon as practicable, perhaps, in connection with correspondence otherwise necessitated, to learn the thesis topics already selected, such information to be obtained from secretaries of graduate clubs, members of faculties, or such other persons as he deems most likely to give full and accurate information. That the editor-in-chief of the *Handbook* give out this information to those writing him for it, withholding names where this has been requested. Your committee recommends that if this plan is adopted, that the delegates in attendance at this Convention be instructed to report in their universities that such information may probably be obtained by writing him after sufficient time has elapsed for the gathering of the data.

A COMMITTEE was appointed, as recommended, to investigate the subject. (See list of committees, page 6.) The recommendation that the editor-in-chief of the *Handbook* ascertain the subjects of theses in preparation was amended, and the duty given to the chairman of the Thesis Committee.

THE CHAIRMAN OF THE THESIS COMMITTEE gives notice that she will arrange a card catalogue of thesis subjects, the blank form of the cards being as follows :

THE FEDERATION OF GRADUATE CLUBS.

CATALOGUE OF THESIS SUBJECTS.

Department..... *Thesis Subject*.....

.....

University..... *Name of Student*.....

Degree..... *When*.....

Approved by.....

Date..... *Head of Dept. of*.....

She will be gratified if students who have selected their subjects, heads of departments, secretaries of graduate clubs, or others having the information, will send it to her. She will cheerfully furnish to any graduate student a list of the theses in preparation in his department in so far as the information is in her possession. Names will be withheld if requested. Address Miss Elizabeth Faulkner, 98 Oakwood Avenue, Chicago, Illinois.

Report of the Committee on Resolutions, Wendell M. Strong, of Yale, Chairman.—The convention adopted the recommendations of the committee as follows : That a vote of thanks be given to the retiring corresponding secretary, Miss Bartol, for her efficient services ; to the editor-in-chief of the *Handbook* ; to the business manager of the *Handbook* ; to the retiring officers ; to Professor Wright, of Harvard, and to Professor White, of Harvard, for their kindness and interest in the Federation ; to the Graduate Club of Harvard, and to the Graduate Club of Radcliffe. The convention also adopted the following declaration of principles recommended by the committee : (1) The Federation is in favor of encouraging migration ; (2) The Federation is most strongly opposed to the honorary Ph.D. ; (3) The Federation believes that the standard for the M.A. degree should be high, and that it should not be given in course or on thesis without other work.

OFFICERS OF THE GRADUATE CLUBS.

Women's Graduate Club of Columbia University.

(Barnard College.)

<i>Pres.</i> , MABEL HURD (Smith).	<i>Treas.</i> , GRACE ANDREWS (Wellesley).
<i>V. Pres.</i> , LOUISE B. DUNN (Barnard).	<i>Sec.</i> , MAUDE WILCOX (Barnard), Barnard College, New York City.

The Graduate Students' Association of Brown University.

Organized in 1890.

<i>Pres.</i> , F. E. WHITAKER (Brown).	<i>Treas.</i> , H. W. N. BENNETT (Brown.)
<i>V. Pres.</i> , M. M. FOGG, JR. (Brown).	<i>Sec.</i> , MABELLE A. CAFFREY (Brown), 46 Abbot St., Providence, R. I.

The Graduate Club of Bryn Mawr College.

Organized 1893-94.

<i>Pres.</i> , EMILY FOGG (Chicago).	<i>Sec.</i> , CHARLOTTE S. MURDOCH (Wo- man's College of Baltimore), Bryn Mawr College, Bryn Mawr, Pa.
<i>V. Pres.</i> , FLORENCE LEFTWICH (Bryn Mawr).	
<i>Treas.</i> , ANNAH P. HAZEN (Smith).	

The Graduate Club of the University of California.

Organized in 1895.

<i>Pres.</i> , R. W. HUSBAND (Toronto).	<i>V. Pres.</i> , MISS C. L. RAYMOND (Cali- fornia).
<i>Sec. and Treas.</i> , M. NINA MARTIN (Southern California), 2241 Telegraph Ave., Berkeley, Cal.	<i>Ass. Sec.</i> , F. A. BISSELL (Western Reserve).

The University of Chicago Graduate Club.

Organized in March, 1895.

<i>Pres.</i> , HENRY M. ADKINSON (Chi- cago).	<i>Treas.</i> , ADNA W. RISLEY, (Colgate).
<i>V. Pres.</i> , WESLEY C. MITCHELL Chicago).	<i>Rec. Sec.</i> , MARY B. HARRIS (Buck- nell).
	<i>Sec.</i> , HELEN B. THOMPSON (Chicago), University of Chicago, Chicago, Ill.

THE GRADUATE HANDBOOK

The Students' Association of Clark University.*Organized January 24, 1896.*

Pres., H. C. MORENO (Georgia). *V. Pres.*, FREDERICK EBV (Mc-Master).
Sec. and Treas., LINDSAY DUNCAN (Maine),
 Clark University, Worcester, Mass.

The Graduate Club of Columbia University.*Organized in November, 1893.*

Pres., J. R. NEAL (Tennessee). *Treas.*, FRANKLIN ZEIGER (Colum-
V. Pres., ALLAN H. WILLETT bia).
 (Brown). *Sec.*, A. A. TENNY (Columbia),
 151 Hewes St., Brooklyn, N. Y.

The Graduate Club of the Columbian University.*Organized December 30, 1895.*

Pres., JOHN W. HOLCOMB (Harvard). *Treas.*, E. G. PORTNER (Columbian).
V. Pres., LILA TAYLER (Wellesley). *Sec.*, F. F. REISNER (Columbian),
 323 F St. N. W., Washington, D. C.

The Graduate Students' Club of Cornell University.*Organized in 1895.*

Pres., C. H. RAMMELKAMP (Cornell). *Treas.*, W. S. FERGUSON (McGill).
1st V. Pres., PEARL JEFFRIES (Butler). *Sec.*, ELOISE ELLERY (Vassar),
2d V. Pres., G. A. SMITH (Toronto). Sage College, Ithaca, N. Y.

The Graduate Club of Harvard University.*Organized in February, 1889.*

Pres., G. W. BENEDICT (Vermont). *Treas.*, W. E. McELFRESH (Illinois).
V. Pres., H. B. LEARNED (Harvard). *Sec.*, R. W. CONE (Kansas),
 23 Hilton Hall, Cambridge, Mass.

The Graduate Club of the Leland Stanford, Jr., University.*Organized in October, 1897.*

Pres., D. A. CURRY (Indiana). *Treas.*, CHARLES F. WRIGHT (Stan-
V. Pres., ETHEL H. CALDWELL ford).
 (Mills). *Sec.*, HELENE BORGMAN (Vassar),
 Stanford University P. O., Cal.

The Graduate Club of the University of Michigan.

Pres., L. C. CARSON (Michigan). *V. Pres.*, MARY L. HINSDALE (Adelbert).

Sec. and Treas., P. P. INGHAM (Michigan),
821 Tappan St., Ann Arbor, Mich.

The University of Minnesota Graduate Club.

Organized in 1895.

Pres., E. M. FREEMAN (Minn.). *Treas.*, CHARLES ZELENY (Minn.).
V. Pres., P. M. GLASOR (Minn.). *Sec.*, A. M. MURFIN (Minn.),
University of Minnesota, Minneapolis, Minn.

The Graduate Club of the University of Missouri.

Organized in December, 1896.

Pres., IRVIN B. BARTH (Missouri). *V. Pres.*, EVA JOHNSTON (Missouri).
Sec. and Treas., MINNIE ORGAN (Missouri),
University of Missouri, Columbia, Mo.

The Graduate Club of New York University.

Pres., J. H. MACCRACKEN (New York). *V. Pres.*, C. W. MCCORMICK (Wesleyan).
Sec. and Treas., GEORGE W. OSBORN (New York),
University Heights, New York City.

The Graduate Club of the University of Pennsylvania.

Organized November 23, 1893.

Pres., CHARLES D. NASON (Haverford). *V. Pres.*, B. W. BRADLEY (Pennsylvania).
Treas., E. B. TWITMYER (Lafayette). *Sec.*, MARY BARTOL, (Bucknell),
3350 Walnut St., Philadelphia.

The Princeton Graduate Club.

Organized in 1895.

Pres., F. H. WARD (Princeton). *Treas.*, A. D. GANTZ (Johns Hopkins).
Sec., H. H. YOCUM (Princeton),
6 S. M. R., Princeton, N. J.

THE GRADUATE HANDBOOK

The Graduate Club of Radcliffe College.*Organized in 1891.*

Pres., LUCY A. PATON (Radcliffe). *Treas.*, JEAN T. EDWARDS (Radcliffe).
Sec., ELIZABETH H. HUNTER (Radcliffe),
 10 Garden St., Cambridge, Mass.

The Graduate Club of Vanderbilt University.*Organized 1894-95.*

Pres., C. R. BASKERVILL (Vanderbilt). *Rec. Sec.*, BEN T. TERRY (Vanderbilt).
1st V. Pres., C. B. WALLER (Wofford). *Treas.*, J. A. CHILES (Central, Mo.).
2d V. Pres., O. D. WANNAMAKER *Sec.*, G. J. NUNN (Vanderbilt),
 (Wofford). Wesley Hall, Nashville, Tenn.

The Graduate Club of Wellesley College.*Organized November 11, 1896.*

Pres., GRACE B. TOWNSEND (Wellesley). *Treas.*, MARGARET WHEELER (Wellesley).
Sec., MARY BOZEMAN (De Pauw),
 Wellesley College, Wellesley, Mass.

The Western Reserve Graduate Club.*Organized March 14, 1895.*

Pres., H. D. RANKIN (Adelbert). *V. Pres.*, FLORENCE WATERMAN
 (Western Reserve).
Sec. and Treas., NINA M. ROBERTS (Western Reserve),
 30 Sayles St., Cleveland, Ohio.

The Graduate Club of the University of Wisconsin.*Organized May 21, 1895.*

Pres., LOUIS M. WARD (Wisconsin). *Treas.*, H. C. TAYLOR (I. S. C.).
V. Pres., S. MILDRED HERFURTH *Sec.*, M. M. BEDDALL (Wisconsin),
 (Wisconsin). 430 Francis St., Madison, Wis.

The Association of Departmental Graduate Clubs of Yale University.*Organized December 3, 1896.*

Pres., DEAN A. W. PHILIPS (Yale). *V. Pres.*, WENDELL M. STRONG
 (Yale).
Sec. and Treas., JAY G. ELDRIDGE (Yale),
 39 Lake Place, New Haven, Conn.

RECIPIENTS OF THE DOCTOR'S DEGREE IN 1898.

(With Titles of Theses.)

ASSYRIAN.

HAYDN EVAN JONES, *Chicago*.
Selected Assyrian Letters. (*To be printed.*)

WILLIAM NELSON MEBANE, *Chicago*.
Assyrian Letters. (*To be printed.*)

HUGO RADAU, *Columbia*.
The E. A. Hoffman Collection of
Babylonian Clay Tablets in the
General Theological Seminary.

SIMON KOPPE, *Pennsylvania*.
The Business Documents of Murasu
Sons, Bankers and Brokers of
Nippur.

J. T. VAN BURKALOW, *Pennsylvania*.
The Buildings of Nebuchadnezzar.

HEBREW.

PEZAVIA O'CONNELL, *Pennsylvania*.
The Synonyms of the Clean and
the Unclean in Hebrew.

ARMENAG HARUTUNE HAIGAZIAN,
Yale.
The Text of Zephaniah.

GEO. P. PARDINGTON, *New York*.
The Origin of the Israelitish King-
ship.

ISMAR JOHN PERITZ, *Harvard*.
Woman's Relation to the Ancient
Hebrew Cult.

FULTON JOHNSON COFFIN, *Chicago*.
The Third Commandment. (*To be
printed.*)

GREEK.

LUCIA C. G. GRIEVE, *Columbia*.
Death and Burial in Attic Tragedy.
(*Printed.*)

A. MARCUS SOHO, *Johns Hopkins*.
Did the Lion Exist in Greece within
Historic Times?

DANIEL A. PENICK, *Johns Hopkins*.
Herodotus in the Renaissance.

THEODORE C. BURGESS, *Chicago*.
Epideictic Oratory. (*To be printed.*)

THEODORE W. HEERMANCE, *Yale*.
Material in the Attic Orators for a
History of the Tradition of the
Persian Wars.

FRED ORLANDO BATES, *Cornell*.
The Five Post-Clisthenean Tribes.
(*To be printed.*)

CLARENCE POWERS BILL, *Harvard*.
De Græcorum Theoris et Theoriis.

JOHN DORSEY WOLCOTT, *Yale*.
New Words in Thucydides.

WINIFRED WARREN, *Bryn Mawr*.
A Study of Conjunctive Tempo-
ral Clauses in Thucydides.
(*Printed.*)

LEONIDAS R. HIGGINS, *Cornell*.
The Position of the Greek Verb
in the Subordinate Clause. (*To
be printed.*)

JAMES TURNER ALLEN, *Yale*.
A Study of the Optative Mode in
Conditional and Conditional-
Relative Clauses in Greek.

S. S. KINGSBURY, *Johns Hopkins*.

A Rhetorical Study of the Style of Andocides. (*Printed.*)

WM. A. ECKELS, *Johns Hopkins*.

Orre as an Index of Style in the Orators.

CHAS. WM. PEPPLER, *Johns Hopkins*.

The Comic Terminology in Aristophanes and the Comic Fragments.

WILLIAM S. BURRAGE, *Harvard*.

Quam accurate Sophoclis Verba in Græcis Litteris Prolata sint Quæritur.

HELEN MCG. SEARLES, *Chicago*.

A Lexicographical Study of the Greek Inscriptions. (*To be printed.*)

EDGAR J. GOODSPEED, *Chicago*.

The Newberry MS. of the Gospels. (*To be printed.*)

JOHN WESLEY RICE, *Harvard*.

Final Clauses in the Septuagint.

LATIN.

FRED B. R. HELLEMS, *Chicago*.

Lex de Imperio Vespasiani. (*To be printed.*)

WALTER DENNISON, *Michigan*.

De C. Suetoni Tranquilli Cæsarum Vitarum Fontibus Epigraphicis. (*To be printed.*)

ARLETTA L. WARREN, *Michigan*.

L. Annæus Seneca quid de Summo Bono censuerit.

KATHARINE ALLEN, *Wisconsin*.

The Treatment of Nature in the Poetry of the Roman Republic. (*To be printed.*)

ESTHER B. VAN DEMAN, *Chicago*.

The Cult of Vesta Publica, and the Vestal Virgins. (*To be printed.*)

FREDERICK M. DEFOREST, *Yale*.

The Greek Names of Roman Priests, Military Officers, Legislative Bodies, and Magistrates.

HERBERT M. HOPKINS, *Harvard*.

De Vocabulis Græcis apud Plautum Repertis.

CHARLES HOEING, *Johns Hopkins*.

The Codex Dunelmensis of Terence.

ARTHUR TAPPAN WALKER, *Chicago*.

The Sequence of Tenses in Latin. (*To be printed.*)

WM. B. SAFFOLD, *Johns Hopkins*.

The Construction with Verbs of Commanding at different periods of the Latin Language.

GEORGE DWIGHT KELLOGG, *Yale*.

The Use of the Subjunctive in Independent Sentences in Cicero's Correspondence.

ANDREW OLIVER, *New York*.

Observations on the Use of certain Prepositions in Petronius.

ENGLISH.

L. MINOR HARRIS, *Johns Hopkins*.

Studies in the Anglo-Saxon Version of the Gospels.

C. SUTHERLAND NORTHUP, *Cornell*.

On the Accentuation and Meaning of the Prefixes *a*, *oe*, *on*, *ond*, in Old English. (*To be printed.*)

WILLIAM ALLAN NEILSON, *Harvard*.

The Origin and Sources of the Court of Love: A Study in Mediæval Allegory.

CHARLES H. BARNWELL, *Harvard*.

The Syntax of Bale's Plays.

- CAROLINE LOUISA WHITE, *Yale*.
Ælfric: A New Study of his Life and Writings. (*Printed*.)
- HELEN ISABEL WHITON, *Columbia*.
The Coördinate and Subordinate Conjunctions in Chaucer's *Troilus* and *Criseyde*, with a Comparison of the *Romaunt of the Rose*. (*Printed*.)
- JAMES WALLACE BROATCH, *Yale*.
The *Troilus* and *Criseyde* of Chaucer.
- KILLIS CAMPBELL, *Johns Hopkins*.
A Study of the Romance of the *Seven Sages*, with Special Reference to the Middle English Versions. (*Printed*.)
- G. HOWARD MAYNADIER, *Harvard*.
The Wife of Bath's Tale: A Study of its Sources and the Tales Related to them.
- ERNEST J. BECKER, *Johns Hopkins*.
A Comparative Study of the Mediæval Visions of Heaven and Hell, with Special Reference to the Visions occurring in the Literature of England.
- ANNA HUNT BILLINGS, *Yale*.
A Guide to the Middle English Metrical Romances which are based upon English and German Legends and upon the Legends of Charlemagne. (*In Press*.)
- BERTHA ELLEN LOVEWELL, *Yale*.
The life of Saint Cecilia, from MSS. Ashmole forty-three and Cottonian Tiberius E. vii., edited with Introduction, Variants, and Glossary. (*Printed*.)
- ELEANOR P. HAMMOND, *Chicago*.
Selections from the Shorter Poems of John Lydgate, with Introduction and Notes. (*To be printed*.)
- ELIZABETH WOODBRIDGE, *Yale*.
Studies in Jonson's Comedy. (*Printed*.)
- ASHLEY H. THORNDIKE, *Harvard*.
Some Contemporary Influences on Shakespeare.
- MARGARET E. FRASER, *Pennsylvania*.
Thomas Lodge as a Dramatist.
- RAYMOND M. ALDEN, *Pennsylvania*.
The Rise of Formal Satire in England under Classical Influence.
- EDWARD CHAUNCEY BALDWIN, *Yale*.
Character-Writings of the Seventeenth Century, with a Critical Edition of Butler's Characters.
- LAURA EMMA LOCKWOOD, *Yale*.
A Lexicon to the English Poetical Works of John Milton, Part I., A-F.
- GEORGE RAPALL NOYES, *Harvard*.
Dryden as a Critic; with special Reference to the French Influence.
- MARGARET SHERWOOD, *Yale*.
Dryden's Dramatic Theory and Practice. (*Printed*.)
- DAVID ARTHUR HUGHES, *Cornell*.
The Paragraphing and Sentence-Structure in Macaulay's History of England. (*To be printed*.)
- MYRON E. BAKER, *Wisconsin*.
Tennyson and Browning: A Study in the Conflict of Personality and Art. (*To be printed*.)
- CHARLTON MINER LEWIS, *Yale*.
The Foreign Sources of Modern English Versification. (*Printed*.)
- GERTRUDE BUCK, *Michigan*.
The Metaphor. (*To be printed*.)
- BEN M. DRAKE, *Vanderbilt*.
The Negro in Southern Literature since the War. (*Printed*.)

GERMAN.

- PHILIP S. ALLEN, *Chicago*.
 Wilhelm Müller and the German
 Volkslied. (*To be printed.*)
- GUSTAV ALBERT ANDREEN, *Yale*.
 The Origin, Development, and
 Character of the Idyl in German
 Literature.
- NEIL CONWELL BROOKS, *Harvard*.
 On the Frankfurt Group of Passion
 Plays.
- JESSIE L. JONES, *Chicago*.
 The Phonology of the Elis Sagas.
 (*To be printed.*)
- EDWIN CARL ROEDDER, *Michigan*.
 Syntax und Stilistik des Adjectivsim
 Altsächsischen. (*To be printed.*)

FRENCH.

- JOHN CHARLES WALKER, *Cornell*.
 Characteristics of French Syntax of
 the Sixteenth Century, as exem-
 plified in the Language of Mar-
 guerite de Navarre. (*To be
 printed.*)
- R. H. WILSON, *Johns Hopkins*.
 The Preposition À: The Relation
 of its Meanings studied in Old
 French.
- LISI C. CIPRIANI, *Chicago*.
 Guide Burgogne, a Critical Edition,
 with Introduction, Notes, and
 Glossary. (*To be printed.*)
- CASBAR H. MALLARIAN, *Cornell*.
 The Dramatic Treatment of Hu-
 man Actions and Passions in the
 Tragedies and the Comedies of
 Corneille. (*To be printed.*)
- JOHN R. EFFINGER, JR., *Michigan*.
 The Dramatic Works of Népomu-
 cène Lemercier. (*To be printed.*)

ITALIAN.

- ARTHUR H. BAXTER, *Johns Hopkins*.
 The Introduction of Classical
 Metres into Italian Poetry, and
 their Development to the Be-
 ginning of the Nineteenth Cen-
 tury.
- MURRAY P. BRUSH, *Johns Hopkins*.
 The *Isopo Laurenziano*, edited with
 Notes and an Introduction treat-
 ing of the Inter-relation of Italian
 Fable Collections.
- JOHN JOSEPH DUNN, *Yale*.
 Vocabulary to the Orlando Furioso
 of Ariosto, Cantos I.-III.

PHILOSOPHY.

- ERNEST C. H. PEITHMAN, *Minnesota*.
 The Conception of *φύσις* in Early
 Greek Philosophy. (*To be
 printed.*)
- C. W. MCCORMICK, *New York*.
 The Ethics of Homer. (*In press.*)
- THOMAS CALHOUN STEARNS, *Yale*.
 An Epistemological Study of Pre-
 Socratic Philosophy.
- GEORGE REBEC, *Michigan*.
 Outlines of a Philosophic Theory of
 Discourse. (*To be printed.*)
- ERNEST CARROLL MOORE, *Chicago*.
 Relation of Education to Philosophy
 in Greece and Early Christianity.
 (*To be printed.*)
- LAWRENCE T. COLE, *Columbia*.
 The Basis of Early Christian
 Theism. (*Printed.*)
- THEODORE HEYSHAM, *Pennsylvania*.
 St. Augustine: His Life and Doc-
 trine.
- WM. M. WASHINGTON, *Columbia*.
 The Material and Formal Elements
 of Kant's Ethics. (*Printed.*)

WILLIAM MANAHAN, *Cornell.*

The Epistemological Function of the Ideas in Kant's Philosophy. (*To be printed.*)

ELLEN BLISS TALBOT, *Cornell.*

The Nature of Fichte's Fundamental Principle, with Special Reference to its Relation to the Individual Consciousness. (*To be printed.*)

JOHN A. MACVANNEL, *Columbia.*

Hegel's Doctrine of the Will. (*Printed.*)

ADDISON W. MOORE, *Chicago.*

Implications of the Teleological Character of Knowledge in Locke's Essay on the Human Understanding. (*To be printed.*)

CARL VERNON TOWER, *Cornell.*

The Relation of Berkeley's Earlier Idealism to the Later Form of his Philosophy. (*To be printed.*)

JACOB F. BYLER, *Pennsylvania.*

The Epistemology of Locke, Berkeley, and Hume.

ARTHUR ERNEST DAVIES, *Yale.*

A Critical Examination of Hume's Psychology of Knowledge.

ALBERT LEFEVRE, *Cornell.*

The Ethical System of Bishop Butler. (*To be printed.*)

ADAM LEROY JONES, *Columbia.*

Early American Philosophers. (*Printed.*)

SADAJIRO SUGIURA, *Pennsylvania.*

Hindu Logic as Preserved in China and Japan.

GEORGE A. COGSWELL, *Cornell.*

Mental Causality. (*To be printed.*)

WILLIAM P. MONTAGUE, *Harvard.*

The Ontological Implicates of Practical Reason.

HENRY T. BEATTY, *New York.*

The Existence of God, or a Contention for a Unitary, Intelligent and Personal World-ground.

WARREN ESTELLE LLOYD, *Yale.*

The Concept of Self.

DANIEL P. MACMILLAN, *Chicago.*

The Negative Judgment. (*To be printed.*)

ARTHUR KENYON ROGERS, *Chicago.*

The Doctrine of Psychophysical Parallelism from a Metaphysical Point of View. (*To be printed.*)

PSYCHOLOGY.

FREDERIC BURK, *Clark.*

From Fundamental to Accessory in Nerve-Muscle Structure and Function. (*Printed.*)

E. W. BOHANNON, *Clark.*

Motor Education. (*Printed.*)

JAMES EDWIN LOUGH, *Harvard.*

The Intensity of Sensation : An Experimental Essay in Physiological Psychology.

LEON MENDEZ SOLOMONS, *Harvard.*

The Fusion of Touch Sensations.

ELEANOR A. MCC. GAMBLE, *Cornell.*

The Applicability of Weber's Law to Smell. (*To be printed.*)

WILFRID LAY, *Columbia.*

Mental Imagery. (*Printed.*)

AMY ELIZA TANNER, *Chicago.*

Imagery, with Special Reference to Association of Ideas. (*To be printed.*)

OSCAR GERSON, *Pennsylvania.*

Mental Association.

WILLIAM L. A. DALTON, *New York*.
Experimental Studies in Association
and Memory. (*In Press*.)

F. W. COLEGROVE, *Clark*.
Memory. (*Printed*.)

ISAAC MADISON BENTLEY, *Cornell*.
The Qualitative Fidelity of the
Memory Image. (*To be printed*.)

EDWARD LEE THORNDIKE, *Columbia*.
Association in Animals. (*Printed*.)

CEPHAS GUILLET, *Clark*.
Instincts in Children and Animals
compared. (*Printed*.)

STELLA EMILY SHARP, *Cornell*.
Individual Psychology. (*To be
printed*.)

DANIEL E. PHILLIPS, *Clark*.
The Teaching Instinct. (*Printed*.)

H. S. CURTIS, *Clark*.
Inhibition, Experimentally and The-
oretically considered. (*Printed*.)

LINUS W. KLINE, *Clark*.
Migration *vs.* Love of Home.
(*Printed*.)

F. E. BOLTON, *Clark*.
Some Hydro-Psychoses. (*Printed*.)

J. RICHARD STREET, *Clark*.
A Genetic Study of Immortality.
(*Printed*.)

PEDAGOGY.

MELICENT W. SHINN, *California*.
A Study of the Development of
Sense Activity in the first Three
Years of Childhood; with Peda-
gogical Conclusions.

OSSE H. MICHENER, *Pennsylvania*.
Individualism in Education.

MEDIÆVAL HISTORY.

WILLIAM RULLKOETTER, *Chicago*.
Legal Protection of Women in An-
cient Germanic Society. (*To be
printed*.)

JAMES SULLIVAN, *Harvard*.
The Life and Political Theories of
William of Ockham.

ARTHUR M. WOLFSON, *Harvard*.
The Podesta: A Study in Italian
Municipal History.

GUY CARLETON LEE, *Johns Hopkins*.
Hincmar: An Introduction to the
Study of the Revolution in the
Organization of the Church of
the Ninth Century. (*Printed*.)

EDITH BRAMHALL, *Pennsylvania*.
The Temporal Privileges of the
Crusaders.

HENRY L. CANNON, *Pennsylvania*.
A Study in the Rise of English Lol-
lardry.

ALBERT BEEBE WHITE, *Yale*.
The First Eight Years of Henry
III.'s Reign, 1216-1224.

NELLIE NEILSON, *Bryn Mawr*.
Economic Conditions on Ramsey
Manors. (*In press*.)

MODERN EUROPEAN HIS- TORY.

PERCY LEWIS KAYE, *Johns Hopkins*.
The Colonial Executive Prior to
the Restoration.

AMERICAN HISTORY.

PAUL SAMUEL REINSCH, *Wisconsin*.
The Attitude of the American Col-
onies to the English Common
Law. (*To be printed*.)

SAMUEL B. HARDING, *Harvard*.
The Contest over the Ratification
of the Federal Constitution in the
State of Massachusetts. (*Printed.*)

GEORGE B. WAKEMAN, *Cornell*.
The International Relations of the
United States during the Civil
War. (*To be printed.*)

C. H. MACCARTHY, *Pennsylvania*.
Reconstruction under President
Lincoln.

POLITICAL SCIENCE.

CARL E. BOYD, *Chicago*.
The Development of Government
in Illinois. (*To be printed.*)

JAMES W. FERTIG, *Chicago*.
Secession and Reconstruction of
Tennessee. (*To be printed.*)

ANNIE LUCY INSKEEP, *Chicago*.
Local Government in California to
1879. (*To be printed.*)

J. ARCHIBALD FAIRLIE, *Columbia*.
Administrative Centralization in the
State of New York. (*Printed.*)

ROBERT H. WHITTEN, *Columbia*.
Public Administration in Massachu-
setts. (*Printed.*)

WALTER J. BRANSON, *Pennsylvania*.
The Primary Election System in
Philadelphia.

ETHEL GLOVER HATFIELD, *Chicago*.
The Interior Department. (*To be
printed.*)

ERNEST ALANSON BALCH, *Chicago*.
Recent Phases of Reciprocity in the
United States. (*To be printed.*)

CORA LOUISA SCOFIELD, *Chicago*.
The Court of Star Chamber. (*To
be printed.*)

HERBERT J. DAVENPORT, *Chicago*.
The French War Indemnity. (*To
be printed.*)

WM. R. PATTERSON, *Pennsylvania*.
The Relation of State and Municipality to Pawnbroking in Europe
and the United States.

ECONOMICS.

JAMES WALTER CROOK, *Columbia*.
Theory of Wages in German Eco-
nomics. (*Printed.*)

MATTHEW B. HAMMOND, *Columbia*.
The Cotton Industry. (*Printed.*)

GEORGE KINGSLEY OLMSTED, *Yale*.
The Economic History of Sugar in
the Nineteenth Century. (*In
press.*)

CHAS. H. BROUGH, *Johns Hopkins*.
Irrigation in Utah. (*Printed.*)

SARAH SCOVILL WHITTELSEY, *Yale*.
In how far has Massachusetts Labor
Legislation been in accordance
with Teachings of Economic
Theory?

RIOTARA KODAMA, *Michigan*.
The Railway System of Japan.
(*To be printed.*)

HENRY P. WILLIS, *Chicago*.
History of the Latin Monetary
Union. (*To be printed.*)

SOCIOLOGY.

IRA W. HOWERTH, *Chicago*.
The Social Aim in Education.
(*To be printed.*)

WARREN PALMER BEHAN, *Chicago*.
Social Work of the Church of Ply-
mouth Colony, 1620-1691. (*To
be printed.*)

JOHN F. CROWELL, *Columbia*.
The Logical Process of Social Development. (*Printed.*)

ANTHROPOLOGY.

FRANK RUSSELL, *Harvard*.
A Study of a Collection of Eskimo Crania from Labrador, with Observations on the Prevailing System of Craniometry.

MATHEMATICS.

HERBERT E. SLAUGHT, *Chicago*.
The Cross Ratio Group of One Hundred and Twenty Quadratic Cremona Transformations of the Plane. (*To be printed.*)

JACOB WESTLUND, *Yale*.
Some New Equations of Transformation.

E. A. PARTRIDGE, *Pennsylvania*.
On the Mathematical Theory of the Geometric Chuck.

WENDELL M. STRONG, *Yale*.
On the Necessity of Continuity in Euclid's Geometry.

FREDERICK C. FERRY, *Clark*.
Geometry on the Cubic Scroll of the First Kind. (*Printed.*)

JOHN EIESLAND, *Johns Hopkins*.
On a certain Class of Functions with Line-Singularities.

GEORGE TUCKER SELLEW, *Yale*.
On the Complex Number.

ERNEST W. RETTGER, *Clark*.
On Lie's Theory of Continuous Groups. (*Printed.*)

DONALD F. CAMPBELL, *Harvard*.
On Linear Differential Equations of the Third and Fourth Orders, in whose Solutions exist certain Homogeneous Relations.

JAMES G. HARDY, *Johns Hopkins*.
On One-Variable Displacements in a Space of Four Dimensions, and on Curves of Triple Curvature.

CHARLES W. COMSTOCK, *Cornell*.
The Application of Quaternions to the Analysis of Internal Stress. (*To be printed.*)

ASTRONOMY.

FREDERICK SLOCUM, *Brown*.
The Harmonic Analysis of the Tides, and a Discussion of the Tides of Narragansett Bay. (*Printed.*)

HARRY Y. BENEDICT, *Harvard*.
The Variation of Latitude.

S. A. MITCHELL, *Johns Hopkins*.
I. The Theory of the Concave Grating; II. Use of the Concave Grating in Stellar Spectroscopy. (*Printed.*)

FRANK SCHLESINGER, *Columbia*.
The Præsepe Group; Measurement and Reduction of the Rutherford Photographs. (*Printed.*)

PHYSICS.

ALBERT F. ZAHM, *Johns Hopkins*.
Determination of the Resistance of the Air at Speeds of Two Hundred to Five Hundred Miles an Hour, with Notes on Two New Methods of measuring Projectile Velocities inside and outside the Gun.

SAMUEL JACKSON BARNETT, *Cornell*.
On the Surface Tension of Liquids under the Influence of Electrostatic Induction.

GARNETT RYLAND, *Johns Hopkins*.
A Contribution to the Study of Liquid Mixtures of Constant Boiling-Point. (*Printed.*)

- EDWIN S. JOHONNOT, JR., *Chicago*.
Thickness of the Black Spot in Liquid Films. (*To be printed.*)
- GEORGE P. STARKWEATHER, *Yale*.
The Thermodynamic Relations for Water Steam.
- CHAS. W. WAIDNER, *Johns Hopkins*.
A Recalculation of the Mechanical Equivalent of Heat.
- BENJAMIN F. SHARP, *Clark*.
An Instrument and Method for the Measurement of Sound. (*Printed.*)
- C. N. HARRISON, *Johns Hopkins*.
The Arc-spectra of the Elements Lanthanum, Vanadium, Zirconium. (*Printed.*)
- C. E. MENDENHALL, *Johns Hopkins*.
A Bolometric Study of the Spectrum of an Absolutely Black Body between the Temperatures of 300° and 1100° Centigrade.
- JOHN ELY MOORE, *Princeton*.
Electrical Discharge from the Points of View of the Kinetic Theory of Matter. (*Printed.*)
- T. D. PENNIMAN, *Johns Hopkins*.
Some New Methods for the Determination and Comparison of Self-Inductance, Mutual Inductance, and Capacity, together with some Actual Measurements.
- EDWARD RHODS, *Johns Hopkins*.
The Effect of the Fibrous Structure of Sheet Iron on the Changes in Length accompanying its Magnetization. (*Printed.*)
- H. B. ARBUCKLE, *Johns Hopkins*.
A Redetermination of the Atomic Weights of Zinc and Cadmium. (*Printed.*)
- F. H. D. CRANE, *Johns Hopkins*.
A Contribution to the Knowledge of Tellurium. (*Printed.*)
- CABELL WHITEHEAD, *Columbia*.
A Study of the Tellurides: Their Formation and Chemical Properties.
- VICTOR LENHER, *Pennsylvania*.
The Atomic Mass and Derivatives of Selenium. (*Printed.*)
- J. M. MATTHEWS, *Pennsylvania*.
Derivatives of the Tetrahalides of Zirconium, Thorium and Lead. (*Printed.*)
- GEORGE E. THOMAS, *Pennsylvania*.
The Atomic Mass of Tungsten, and the Preparation of Sodium Perungstate by the Electric Current. (*Printed.*)
- WILBER DWIGHT ENGLE, *Columbia*.
Some Thiocyanates. (*Printed.*)
- WILLIAM APP JONES, *Johns Hopkins*.
A Contribution to the Knowledge of Dicarboxyl Cuprous Chloride.
- E. A. ATKINSON, *Pennsylvania*.
Metal Separation by Means of Hydrobromic Acid Gas. (*Printed.*)
- GEORGE W. SARGENT, *Pennsylvania*.
The Quantitative Determination of Boric Acid in Tourmaline. (*Printed.*)
- MARTHA AUSTIN, *Yale*.
The Estimation of Manganese in Analysis.
- OTTO KNUTE OLOF FOLIN, *Chicago*.
On Urethans. (*To be printed.*)

CHEMISTRY.

- ALLERTON S. CUSHMAN, *Harvard*.
The Atomic Weight of Nickel.

ELIZABETH JEFFREYS, *Chicago*.

On Urethanes. (*To be printed.*)

FRANK BURNETT DAINS, *Chicago*.

On the Isourea Ethers and other Derivatives of Ureas. (*To be printed.*)

CYRIL GEORGE HOPKINS, *Cornell*.

The Chemistry of the Corn Kernel. (*To be printed.*)

JOHN A. MATHEWS, *Columbia*.

On the Action of the Fatty Nitrils upon Aromatic Acids. (*Printed.*)

HERBERT NEWBY MCCOY, *Chicago*.

On the Hydrochlorides of Carbo-phenylamide Derivatives. (*To be printed.*)

WILLIAM B. BENTLEY, *Harvard*.

Tribrombenzol and Derivatives.

JOHN FERGUSON SNELL, *Cornell*.

Potassium Chloride in Aqueous Acetone. (*To be printed.*)

CHARLES AUGUSTUS SOCH, *Harvard*.

Action of Sodium Nitromalonic Aldehyde on Ketones and Ketone Acids.

CHARLES G. COOK, *Johns Hopkins*.

Some Double Halides of Tin with the Aliphatic Amines and with Tetramethylammonium. (*Printed.*)

EBENEZER E. REID, *Johns Hopkins*.

Studies in the Hydrolysis of Acid Amides.

BAYARD BARNES, *Yale*.

Investigations in Organic Chemistry.

HECTOR RUSSELL CARVETH, *Cornell*.

Single Differences of Potential. (*To be printed.*)

WM. M. GROSVENOR, JR., *Pennsylvania*.

Electrolytic Reductions. (*Printed.*)

ZOOLOGY AND PHYSIOLOGY.

J. VAN DENBURGH, *Leland Stanford, Jr.*

The Reptiles of the Pacific Coast and Great Basin: An account of the Species known to inhabit California and Oregon. (*Printed.*)

JAMES GEORGE NEEDHAM, *Cornell*.

A Genealogic Study of Dragon-fly Wing Venation. (*To be printed.*)

FREDERICK C. WAITE, *Harvard*.

The Structure and Development of the Antennal Glands in *Homarus americanus* Milne-Edwards.

ESTHER F. BYRNES, *Bryn Mawr*.

The Maturation and Fertilization of the Egg of *Limax*. (*In press.*)

FRANK WATTS BANCROFT, *Harvard*.

Ovogenesis in *Distaplia*, with Remarks on other Species.

WILLARD GIBBS VANNAME, *Yale*.

On the Embryology of a Marine Planarian.

GILMAN A. DREW, *Johns Hopkins*.

The Anatomy, Habits, and Embryology of *Yoldia limatula*, Say.

HAROLD HEATH, *Pennsylvania*.

The Development of *Ischnochiton*.

SAMUEL J. HOLMES, *Chicago*.

The Early Development of *Planorbis trivolvis*. (*To be printed.*)

GARY NATHAN CALKINS, *Columbia*.

Mitosis in *Noctiluca miliaris* and its Bearing on the Nuclear Relations of the Protozoa and Metazoa. (*Printed.*)

ALICE HOPKINS ALBRO, *Yale*.

The Origin and Chemical Relationship of some Products of Proteolytic Cleavage.

YANDELL HENDERSON, *Yale*.

Chemico-Physiological Studies on the Derivatives of the Proteids.

ALBERT P. MATHEWS, *Columbia*.

The Structural Changes of the Pancreas Cell, with some General Considerations on Cell Metabolism. (*Printed.*)

CHAS. W. GREENE, *Johns Hopkins*.

On the Relations of the Inorganic Salts found in Blood to the Automatic Activity of a Strip of Cardiac Muscle. (*Printed.*)

C. L. HERRICK, *Minnesota*.

A Theory of Somatic Equilibrium with Illustrations of a possible Mechanism therefor in the Skin. (*Printed.*)

WILLIAM D. ZOETHOUT, *Chicago*.

The Physiological Effects of High Temperatures and Lack of Oxygen upon Lower Organisms. (*To be printed.*)

BOTANY.

WILLIS L. JEPSON, *California*.

Contributions to a Flora of Western Middle California.

MARSHALL AVERY HOWE, *Columbia*.

The Hepaticæ of California. (*Printed.*)

WILLIAM L. BRAY, *Chicago*.

The Xerophytic Flora of the Texan Plains.

HENRY C. COWLES, *Chicago*.

An Ecological Study of the Sand Dune Flora of Northern Indiana. (*To be printed.*)

ABEL JOEL GROUT, *Columbia*.

A Revision of the North American Isoetheciaceæ and Brachytheciæ. (*Printed.*)

PER AXEL RYDBERG, *Columbia*.

A Revision of the North American Potentilleæ. (*Printed.*)

WILLIAM D. MERRELL, *Chicago*.

Contributions to the Life History of Silphium. (*To be printed.*)

FRANCIS RAMALEY, *Minnesota*.

Contributions to the Knowledge of Seedlings of Woody Plants. (*Printed.*)

KARL MCKAY WIEGAND, *Cornell*.

Investigations on the Sporogony and Embryogeny of certain Monocotyledons. (*To be printed.*)

OTIS W. CALDWELL, *Chicago*.

Morphology of Lemna, with Ecological Notes. (*To be printed.*)

BENJAMIN MINGE DUGGAR, *Cornell*.

Studies on the Morphology of the Gametophyte, and Development of the Sporangium, in some Angiosperms.

JOSEPH W. BLANKINSHIP, *Harvard*.

Isolation as a Criterion of Species.

GEOLOGY.

FRED. EHRENFELD, *Pennsylvania*.

A Study of the Igneous Rocks of York Haven and Stony Brook, Pa., and their accompanying Formations. (*Printed.*)

C. ABBE, JR., *Johns Hopkins*.

Some Maryland Rivers and their Development: A Contribution to the Physiographic History of Maryland.

A. G. LEONARD, *Johns Hopkins*.
The Basic Rocks of Northeastern
Maryland, and their Relation to
the Granite.

C. CISNEY O'HARRA, *Johns Hopkins*.
The Geology of Allegheny County,
Maryland.

E. ROBERTSON BUCKLEY, *Wisconsin*.
The Building and Monumental
Stone of Wisconsin. (*Printed.*)

SAMUEL WEIDMAN, *Wisconsin*.
The Geology of the Pre-Cambrian
Igneous Rocks of the Fox River
Valley, Wisconsin. (*Printed.*)

ARTHUR H. EFTMAN, *Minnesota*.
The Keweenawan Rocks of North-
eastern Minnesota. (*Printed.*)

N. F. DRAKE, *Leland Stanford, Jr.*
Geology of the Coal Fields of the
Indian Territory. (*Printed.*)

PALÆONTOLOGY.

GEORGE FRANCIS EATON, *Yale*.
The Prehistoric Fauna of Block
Island, as indicated by its Ancient
Shell Heaps. (*Printed.*)

MINERALOGY.

HARRY WARD FOOTE, *Yale*.
Investigations in Chemistry and
Mineralogy. (*Printed.*)

OFFICERS OF THE GRADUATE SCHOOLS.

Barnard College.—See Columbia.

Brown University.—Benjamin Franklin Clarke, Sc.D., Acting President. Address Frederick T. Guild, Registrar, Providence, R. I.

Bryn Mawr College.—M. Carey Thomas, Ph.D., LL.D., President. Address Frances Lowater, Secretary, Bryn Mawr, Pa.

University of California.—Martin Kellogg, LL.D., President. Address James Sutton, Recorder of the Faculties, Berkeley, Cal.

University of Chicago.—William R. Harper, Ph.D., LL.D., President. Address H. P. Judson, Dean of the Faculty of Arts and Literature, or R. D. Salisbury, Dean of the Ogden School of Science, Chicago, Ill.

Clark University.—E. Stanley Hall, Ph.D., LL.D., President. Address the President, Worcester, Mass.

Columbia University.—Seth Low, LL.D., President. Address William H. H. Beebe, Secretary of the University, New York City.

The Columbian University.—B. L. Whitman, D.D., President. Address Charles E. Munroe, Dean of the Graduate School, Washington, D. C.

Cornell University.—Jacob Gould Schurman, Sc.D., LL.D., President. Address Horatio Stevens White, Dean of the University Faculty, Ithaca, N. Y.

Harvard University.—Charles William Eliot, LL.D., President. Address John Henry Wright, Dean of the Graduate School, Cambridge, Mass.

The Johns Hopkins University.—Daniel C. Gilman, LL.D., President. Address the Registrar, Baltimore, Md.

The Leland Stanford, Jr., University.—David Starr Jordan, M.D., Ph.D. LL.D., President. Address O. L. Elliott, Registrar, Stanford University P. O., Cal.

University of Michigan.—James B. Angell, LL.D., President. Address W. H. Pettee, Secretary of the Administrative Council, Ann Arbor, Mich.

University of Minnesota.—Cyrus Northrop, LL.D., President. Address the President, Minneapolis, Minn.

University of Missouri.—R. H. Jesse, LL.D., President. Address the Chairman of the Committee on Graduate Instruction, Columbia, Mo.

New York University.—Henry M. McCracken, D.D., LL.D., President. John Dyneley Prince, Dean of the Graduate School. Address Professor Pomeroy Ladue, Secretary of the Graduate School, New York City.

University of Pennsylvania.—Charles C. Harrison, LL.D., Provost. Address William Romaine Newbold, Dean of the Department of Philosophy, Philadelphia, Pa.

Princeton University.—Francis Landey Patton, D.D., LL.D., President. Address Professor William F. Magie, Princeton, N. J.

Radcliffe College.—Mrs. Elizabeth Cary Agassiz, President. Address Miss Mary Coes, Secretary, Cambridge, Mass.

Vanderbilt University.—J. H. Kirkland, Ph.D., LL.D., Chancellor. Address W. M. Baskervill, Chairman of the Committee on University Instruction, Nashville, Tenn.

Wellesley College.—Mrs. Julia J. Irvine, A.M., Litt.D., President. Address Dr. Helen L. Webster, Chairman of the Committee on Graduate Instruction, Wellesley, Mass.

Western Reserve University—Charles F. Thwing, D.D., LL.D., President. Address Robert Waller Deering, Dean of the Graduate School, 80 Cornell Street, Cleveland, Ohio.

University of Wisconsin.—Charles Kendall Adams, LL.D., President. Address Charles F. Smith, Chairman of the Committee on Graduate Instruction, Madison, Wis.

Yale University.—Timothy Dwight, D.D., LL.D., President. Address Andrew W. Phillips, Dean of the Graduate School, New Haven, Conn.

Columbia University

in the City of New York

Columbia University includes both a college and a university in the strict sense of the words. The college is Columbia College, founded in 1754 as King's College. The university consists of the Faculties of Law, Medicine, Philosophy, Political Science, Pure Science, and Applied Science. Teachers College, a professional school for teachers, while financially an independent corporation, is also a part of the university. As a professional school it is conducted by its own faculty. From the point of view of the University, its courses in education that lead to a degree fall under the Faculty of Philosophy.

The point of contact between the College and the University is the senior year of the College, during which year students in the College pursue their studies, with the consent of the College Faculty, under one or more of the faculties of the university.

Each school is under the charge of its own faculty, except that the Schools of Mines, Chemistry, Engineering, and Architecture are under the charge of the Faculty of Applied Science. For the better conduct of the strictly university work, as well as of the whole institution, a University Council has been established.

I. THE COLLEGE.

The College offers a course of four years, leading to the degree of Bachelor of Arts. Candidates for admission to the College must be at least fifteen years of age, and pass an examination on prescribed subjects, the particulars concerning which may be found in the annual Circular of Information.

II. THE UNIVERSITY.

In a technical sense, the Faculties of Law, Medicine, Philosophy, Political Science, Pure Science, and Applied Science, taken together, constitute the university. These faculties offer advanced courses of study and investigation, respectively, in (a) private or municipal law, (b) medicine, (c) philosophy, philology, and letters, (d) history, economics, and public law, (e) mathematics and natural science, and (f) applied science. Courses of study under all of these faculties are open to members of the senior class in the College and also to all students who have successfully pursued an equivalent course of undergraduate study to the close of the junior year. These courses lead, through the bachelor's degree, to the university degrees of Master of Arts and Doctor of Philosophy. The degree of Master of Laws is also conferred for advanced work in law done under the Faculties of Law and Political Science together.

III. THE PROFESSIONAL SCHOOLS.

The Faculties of Law, Medicine, and Applied Science conduct respectively the professional schools of Law, Medicine, and Mines, Chemistry, Engineering, and Architecture, to which students are admitted as candidates for professional degrees

on terms prescribed by the faculties concerned. The faculty of Teachers College conducts professional courses for teachers, that lead to the diploma of Teachers College.

1. The School of Law, established in 1858, offers a course of three years, in the principles and practice of private and public law, leading to the degree of Bachelor of Laws.

2. The College of Physicians and Surgeons, founded in 1807, offers a course of four years in the principles and practice of medicine and surgery, leading to the degree of Doctor of Medicine.

3. The School of Mines, established in 1864, offers courses of study, each of four years, leading to a professional degree, in mining engineering, and in metallurgy.

4. The Schools of Chemistry, Engineering, and Architecture, set off from the School of Mines in 1896, offer respectively, courses of study, each of four years, leading to an appropriate professional degree in analytical and applied chemistry; in civil, sanitary, electrical, and mechanical engineering; and in architecture.

5. Teachers College, founded in 1888 and chartered in 1889, was included in the University in 1898. It offers courses of study, each of four years, leading to the college diploma, for secondary, elementary, and kindergarten teachers. It also offers courses of two years, leading to a departmental diploma in Art, Domestic Science, Domestic Art, and Manual Training. Certain of its courses are accepted by Columbia University, and may be taken by students of the University in partial fulfillment of the requirements for the degrees of Bachelor of Arts, Master of Arts, and Doctor of Philosophy, without extra charge.

SETH LOW, LL.D., President.

University of Pennsylvania.

Founded 1740.

The University of Pennsylvania traces its origin to the year 1740, when a Charitable School was established in the city of Philadelphia. Later, in 1751, this school was advanced to academic rank, chiefly through the efforts of Benjamin Franklin; received its first charter in 1753; a confirmatory charter in 1755, conferring the power to grant degrees; and finally, in 1791, was reorganized under its present style and title.

IT NOW COMPREHENDS

DEPARTMENTS OF INSTRUCTION

as follows:

THE COLLEGE (1751). JOSIAH H. PENNIMAN, Ph.D., Dean. School of Arts: Courses in Arts and Science, Finance and Economy, Biology, Music.

Towne Scientific School: Courses in Architecture, Science and Technology, Mechanical and Electrical Engineering, Civil Engineering, Chemistry, Chemical Engineering.
Courses for Teachers.

Buildings: College Hall, Biological Hall, John Harrison Laboratory of Chemistry, The Mechanical Laboratory.

THE DEPARTMENT OF PHILOSOPHY (1883) (Graduate School), W. R. NEWBOLD, Ph.D., Dean, offers advanced instruction in Philosophy, History, Literature, and Pure Science.

Buildings: Those of the College.

THE DEPARTMENT OF LAW (1790: 1850), W. D. LEWIS, Ph.D., Dean.

Buildings: Sixth and Chestnut Streets. A new building for the Law School is now in course of erection near the University grounds, at a cost of \$350,000.

THE DEPARTMENT OF MEDICINE (1765), JOHN MARSHALL, M.D., Nat.Sc.D., Dean.

Buildings: Medical Hall, Medical Laboratory (cf. also Laboratory of Hygiene, University Hospital and Wistar Institute). New laboratories of medicine are about to be erected at a cost of \$300,000.

THE DEPARTMENT OF DENTISTRY (1878). EDW. C. KIRK, D.D.S., Dean.

Building: Dental Hall.

THE DEPARTMENT OF VETERINARY MEDICINE (1884). LEONARD PEARSON, B.S., V.M.D., Dean.

Buildings: Veterinary Hall (cf. also the Veterinary Hospital).

DEPARTMENTS OF RESEARCH

available also for purposes of instruction, as follows:

THE UNIVERSITY HOSPITAL (1874). MARY E. P. DAVIS, Superintendent.

Buildings: The Hospital, The D. Hayes Agnew Surgical Pavilion, The Gibson Wing for Chronic Diseases, The Maternity Pavilions, The Training School for Nurses.

Staff: Chiefly that of the Medical School.

THE VETERINARY HOSPITAL (1885) is under the control of the Veterinary Department.

THE WILLIAM PEPPER LABORATORY OF CLINICAL MEDICINE (1895). ALFRED STENGEL, M.D., Assistant Director.

THE WISTAR INSTITUTE OF ANATOMY AND BIOLOGY (1892). HORACE JAYNE, M.D., Ph.D., Director.

Building: The Wistar Institute (containing Museums and rooms for original research).

THE INSTITUTE OF HYGIENE (1892). ALEX. C. ABBOTT, M.D., Director.

Building: The Laboratory of Hygiene.

THE FLOWER ASTRONOMICAL OBSERVATORY (1896). CHARLES L. DOOLITTLE, C.E., Sc.D., Director.

Building: The Observatory.

DEPARTMENT OF ARCHÆOLOGY AND PALEONTOLOGY (1889) STEWART CULIN, Director.

Building: The Museum.

THE UNIVERSITY LIBRARY. MORRIS JASTROW, JR., Ph.D., Librarian.

Building: The Library (1891). 150,000 bound volumes. Ca. 100,000 pamphlets.

PROVISIONS FOR THE DAILY LIFE OF THE STUDENTS.

The Howard Houston Hall (1896), a fully appointed club-house, is occupied by The Houston Club, a students' organization. It provides reading- and game-rooms, restaurant, baths, assembly-rooms, etc. Annual dues, \$2.00. Membership, 1850.

The University Dormitories (1896), erected at a cost of \$350,000, provide accommodations, at present, for 350 students.

The Department of Physical Education, CASPAR W. MILLER, M.D., Ph.D., Director, provides personal supervision of the physical condition of every student. There is also a "Students' Ward" in the University Hospital, for the special accommodation of students who may fall ill.

Students (1898-99), 2790.

Officers of Instruction, 358.

Johns Hopkins University,

Baltimore, Md.

President DANIEL C. GILMAN.

Libraries of Baltimore.

University 89,000 volumes.
Peabody 130,000 volumes.
Pratt 180,000 volumes.

Laboratories.

Physics. *Henry A. Rowland.*
Electricity. *Louis Duncan.*
Chemistry. *Ira Remsen.*
Geology. *William B. Clark.*
Zoology. *William K. Brooks.*
Anatomy. *Franklin P. Mall.*
Physiology. *William H. Howell.*
Pathology. *William H. Welch.*
Pharmacology. *John F. Abel.*
Physiol. Chem'try. *John F. Abel.*
Clinical Medicine. *William Osler.*

Directors.

Seminaries.

Greek. *Basil L. Gildersleeve.*
Latin. *Minton Warren.*
Sanskrit. *Maurice Bloomfield.*
Semitic. *Paul Haupt.*
German. *Henry Wood.*
Romance. *A. Marshall Elliott.*
English. *James W. Bright.*
History. *Herbert B. Adams.*
Economics. *Sidney Sherwood.*
Mathematics. *Thomas Craig.*
Physics. *Joseph S. Ames.*
Astronomy. *Charles L. Poor.*

Inquiries as to Graduate, Medical, and Collegiate Courses should be addressed to the Registrar of the JOHNS HOPKINS UNIVERSITY.

Johns Hopkins Press,

Baltimore, Md.

List of Serial Publications.

AMERICAN JOURNAL OF MATHEMATICS.
Simon Newcomb and Thomas Craig,
Editors. Vol. XXI. in progress.

AMERICAN CHEMICAL JOURNAL.
Ira Remsen, Editor. Vol. XXI. in
progress.

AMERICAN JOURNAL OF PHILOLOGY.
B. L. Gildersleeve, Editor. Vol. XX.
in progress.

STUDIES IN HISTORICAL AND POLITICAL
SCIENCE.
Herbert B. Adams, Editor. Vol. XVII.
and Extra Vol. XIX. in progress.

MEMOIRS FROM THE BIOLOGICAL LAB-
ORATORY.
W. K. Brooks, Editor. Vol. IV. in
progress.

JOHNS HOPKINS UNIVERSITY CIRCUL-
LARS. Vol. XVIII. in progress.

CONTRIBUTIONS TO ASSYRIOLOGY.
Paul Haupt, Editor. Vol. IV. in
progress.

THE JOHNS HOPKINS HOSPITAL RE-
PORTS.
Vol. VII. in progress.

THE JOHNS HOPKINS HOSPITAL BULLE-
TIN.
Vol. X. in progress.

MODERN LANGUAGE NOTES.
A. M. Elliott, Editor. Vol. XIV. in
progress.

THE JOURNAL OF EXPERIMENTAL
MEDICINE.
W. H. Welch, Editor. Vol. IV. in
progress.

A detailed list of publications will be sent on application to Secretary, JOHNS HOPKINS PRESS, Baltimore.

THE UNIVERSITY OF CHICAGO

HAS TWENTY-EIGHT DEPARTMENTS in which graduate instruction is offered; has three million dollars invested in grounds, buildings, and equipment; has three hundred and fifty thousand volumes in its libraries. About eighty Fellowships are assigned annually. During the four quarters of the year 1897-98 there were 2502 students enrolled, nearly nine hundred of these being in the graduate schools.

For the Circular of Information of the Graduate Schools, Departmental Programmes, or other information, address

THE UNIVERSITY OF CHICAGO, CHICAGO, ILLINOIS.

The University of Chicago Journals

THE BIBLICAL WORLD

Published monthly. \$2.00 a year; foreign, \$2.50. Single numbers, 20 cents.

THE SCHOOL REVIEW

Published monthly (except July and August). \$1.50 a year; foreign, \$2.00. Single numbers, 20 cts.

THE AMERICAN JOURNAL OF SOCIOLOGY

Bi-monthly. \$2.00 a year; foreign, \$2.50. Single copies, 35 cents.

THE JOURNAL OF POLITICAL ECONOMY

Published quarterly. \$3.00 a year; foreign, \$3.50. Single numbers, 75 cents.

THE JOURNAL OF GEOLOGY

Published semi-quarterly. \$3.00 a year; foreign, \$3.50. Single numbers, 50 cents.

THE ASTROPHYSICAL JOURNAL

Published monthly (except July and September). \$4.00 a year; foreign, \$4.50. Single copies, 50 cents.

THE BOTANICAL GAZETTE

Published monthly. \$4.00 a year; foreign, \$4.50. Single numbers, 50 cts.

THE AMERICAN JOURNAL OF SEMITIC LANGUAGES AND LITERATURES

Published quarterly. \$3.00 a year; foreign, \$3.50. Single numbers, 75 cents.

THE AMERICAN JOURNAL OF THEOLOGY

Published quarterly. \$3.00 a year; foreign, \$3.50. Single numbers, 75 cents.

THE UNIVERSITY RECORD

The official weekly publication of the University of Chicago. \$1.50 a year. Single copies, 5 cts.

All subscriptions and requests for sample copies should be addressed to

The University of Chicago Press, Chicago, Illinois.

CORNELL UNIVERSITY

COMPRISES THE FOLLOWING DEPARTMENTS:

- The **GRADUATE DEPARTMENT** (Degrees A.M., Ph.D., etc.).
The **ACADEMIC DEPARTMENT**, or **Department of Arts and Sciences**
(Degree A.B.).
The **COLLEGE OF LAW** (Degree LL.B.).
The **MEDICAL COLLEGE** (Degree M.D.).
The **NEW YORK STATE VETERINARY COLLEGE** (Degree D.V.M.).
The **COLLEGE OF AGRICULTURE** (Degree B.S.A.).
The **NEW YORK STATE COLLEGE OF FORESTRY** (Degree B.S.F.).
The **COLLEGE OF ARCHITECTURE** (Degree B.Arch.).
The **COLLEGE OF CIVIL ENGINEERING** (Degree C.E.).
The **SIBLEY COLLEGE OF MECHANICAL ENGINEERING AND
MECHANIC ARTS** (Degree M.E.).

For copies of the *University Register* and for additional information, apply to
REGISTRAR, CORNELL UNIVERSITY,
ITHACA, N. Y.

The Columbian University

OFFERS COURSES IN UNDERGRADUATE, GRADUATE, AND PROFESSIONAL WORK IN
EIGHT SCHOOLS:

- THE COLUMBIAN COLLEGE.**
THE CORCORAN SCIENTIFIC SCHOOL.
THE GRADUATE SCHOOL.
THE LAW SCHOOL.
**THE SCHOOL OF COMPARATIVE JURISPRUDENCE
AND DIPLOMACY.**
THE MEDICAL SCHOOL.
THE DENTAL SCHOOL.
THE VETERINARY SCHOOL.

BENAIHA L. WHITMAN, D.D., President.

For information, apply to the Dean of each School, Columbian University,
Washington, D. C.

CLARK UNIVERSITY.

WORCESTER, MASS.

Graduate Courses only (Degree of Ph.D.):

MATHEMATICS,
BIOLOGY,

PHILOSOPHY,
PHYSICS,
PEDAGOGY.

PSYCHOLOGY,
ANTHROPOLOGY,

Fellowships and scholarships in all departments.

Appointments made June 1 and September 1.

Library of seventeen thousand volumes, selected by the heads of departments to meet the special needs of graduate students. It is very complete, and absolutely free to all members of the University.

Reading-Room receives one hundred and seventy current scientific periodicals.

SUMMER SCHOOL

courses in Biology, Psychology, and Pedagogy, latter half of July. Full particulars on application, address

LOUIS N. WILSON, Clerk.

University of the State of Missouri.

FOUNDED IN 1840.

HAS departments of Language, Science, History, Economics, Philosophy, and Pedagogics; and also of Law, Medicine, Engineering (civil, electrical, and mechanical), Agriculture, Horticulture, Entomology, Veterinary Science, and Mechanic Arts, all at Columbia, Mo. Instruction is given in military science and tactics also, and in stenography and business forms. All departments open to women. Fees small. Campus contains ten buildings, supplied with water, steam-heat, and electricity. New greenhouse and laboratory of horticulture, botany, and entomology. New laboratories of physiology, bacteriology, and pathology in the medical department. Furniture, library, and equipment for scientific and technical work all new. Sixty-two professors and instructors in the whole university. Examination for entrance will be held at Columbia, during the four days preceding the opening of the university. For cadetship, apply to your senator or representative. (The School of Mines and Metallurgy, at Rolla, is a department of the University.)

For Catalogue, address IRVIN SWITZLER, Registrar, Columbia, Mo.

R. H. JESSE, LL.D., President.

Founded 1868.

Enrolment 1898-99: 190 instructors, 2850 students.

The University of Minnesota

offers the following advantages:

Undergraduate Work . .

In the college of Science, Literature, and the Arts: classical, scientific, literary, and civic courses, leading to B.A., B.S., B.L., and Ph.B. degrees.

In the college of Engineering and the Mechanic Arts: engineering courses leading to M.E., E.E., and C.E. degrees.

In the school of Chemistry: a course in technical and applied chemistry, leading to the B.S. degree.

In the school of Mines: courses in mining and metallurgy, leading to E.M. and Met.E. degrees.

In the college of Agriculture: a practical and scientific course in agriculture, leading to the Agr. B. degree.

In the college of Law: a three-year course leading to the LL.B. degree.

In the department of Medicine: four-year courses in Medicine and Homœopathic Medicine, leading to the M.D. degree; a three-year course in Dentistry, leading to D.M.D.; and two-year and three-year courses in Pharmacy, leading to Phm.D.

Graduate Work . . .

Courses of study leading to the master's and doctor's degrees are offered in the college of Science, Literature, and the Arts, and to the master's degree in the college of Engineering and the Mechanic Arts, the school of Mines and school of Chemistry.

In the Law school one and two years of graduate study are offered leading to LL.M. and D.C.L.

In the college of Pharmacy, two years of graduate study are offered.

Other Advantages . .

Excellent library facilities, laboratories, museums, and low tuition and incidental fees.

Bulletins of the several departments have been published and will be sent free on application. In writing, state particular department in which information is desired. Address,

CYRUS NORTHROP, President, Minneapolis, Minn.

BRYN MAWR COLLEGE, BRYN MAWR, PENNA.

ORGANIZATION.—The College has been organized with special reference to giving both undergraduate and graduate, or university, teaching, and offers full graduate and undergraduate instruction in Greek, Latin, English, German, French, Italian, and Spanish, History, Political Science, Philosophy, Mathematics, Physics, Chemistry, and Biology, and graduate and elective courses in Sanskrit and Indo-European Philology, Old French, Gothic, Teutonic Philology, Old Norse, Old High German, Middle High German, Old Saxon, Anglo-Saxon, Celtic and Slavonic Languages, Hebrew, Aramaic, Assyrian, Biblical Literature, Pedagogy, History of Art, Physical Chemistry, Geology, Mineralogy, Palæontology, and Physiological Chemistry.

LIBRARY.—The library, containing twenty-nine thousand volumes and seven thousand pamphlets, includes the classical library of Professor Sauppe, the Semitic library of Professor Amiaud, and excellent collections in the Norse, Swedish, and Spanish languages. Two hundred and fifty-four literary and philological periodicals and reviews in the English, German, French, Italian, Norse, and Swedish languages, are taken by the library.

FELLOWSHIPS, SCHOLARSHIPS, AND EXPENSES.—The College offers eleven resident fellowships of the value of five hundred and twenty-five dollars each, awarded annually,—one in Greek, one in Latin, one in English, one in German and Teutonic Philology, one in Romance languages, one in History or Political Science, one in Philosophy, one in Mathematics, one in Physics, one in Chemistry, and one in Biology. These fellowships are awarded as an honor in recognition of previous attainments. They are open to graduates of Bryn Mawr College, or of any other college of good standing.

It also offers three European fellowships of the value of five hundred dollars each, and five resident graduate scholarships. The lowest charge for tuition, board, and residence in one of the College Halls is four hundred dollars a year.

For the general program, or graduate pamphlet, address Bryn Mawr College, Bryn Mawr, Pa.

Vanderbilt University

comprehends the following departments :

1. Academic Department—

a) College (Degrees, B.A., B.S.).

b) University (Degrees, M.A., M.S., Ph.D., Sc.D.).

2. Theological Department (Degree, B.D.).

3. Engineering Department (Degrees, B.E., C.E., M.E., E.M.).

4. Law Department (Degree, LL.B.).

5. Medical Department (Degree, M.D.).

6. Pharmaceutical Department (Degree, Ph.B.).

7. Dental Department (Degree, D.D.S.).

Ten Scholastic Fellowships worth \$100 and free tuition.

Eight Teaching Fellowships worth \$300 to \$500 and free tuition.

JAMES H. KIRKLAND, Chancellor.

Address, WILS WILLIAMS, Bursar, or W. M. BASKERVILL, Chairman of the Committee on University Instruction.

Massachusetts Institute of Technology, Boston.

JAMES M. CRAFTS, LL.D., President.

THE Institute offers four-year courses in Civil, Mechanical, Mining, Electrical, Chemical, and Sanitary Engineering; in Architecture, Metallurgy, Chemistry, Physics, Biology, Geology; in Naval Architecture, and in General Studies.

Special advantages are offered to college graduates.

Catalogues and detailed circulars of information will be sent free on application.

H. W. TYLER, Secretary,

491 Boylston Street, Boston, Mass.

Enrolment 1898-99: 122 Instructors, 697 Students.

WESTERN RESERVE UNIVERSITY

INCLUDES THE FOLLOWING DEPARTMENTS:

- 1.—**Adelbert College** (Degrees A.B., B.L., Ph.B.).
Address for Catalogues, the Secretary, E. Bushnell.
- 2.—**The College for Women** (Degrees A.B., B.L., Ph.B.).
Address the Registrar, Professor Henry E. Bourne.
- 3.—**The Graduate School** (Degrees A.M., Ph.D.).
Address the Dean, Professor R. W. Deering.
- 4.—**The Medical College** (Degree M.D.).
Address the Secretary, G. C. Ashmun, M.D., 798 Republic Street.
- 5.—**The School of Law** (Degree LL.B.).
Address the Dean, Professor E. H. Hopkins, Cuyahoga Building.
- 6.—**The Dental College** (Degree D.D.S.).
Address the Secretary, Professor W. H. Whitslar, 29 Euclid Avenue.

Information is gladly furnished by the officers of each department, or by the President of the University.

CHARLES F. THWING, *President*, Cleveland, Ohio.

Teacher's Co-operative Association.

Established in 1884.

Positions filled, 4700.

EASTERN BRANCH:

160, The Auditorium Building,

494 ASHLAND AVE., BUFFALO. N. Y.

Chicago.

The Misses Shipley's School, Preparatory to Bryn Mawr College,

. . . . BRYN MAWR, PA.

Faculty . . All subjects required for college entrance examinations are under the charge of specialists experienced in the methods of Bryn Mawr College.

Instruction. Special attention is given to sight translation in Greek, Latin, French, and German. An earnest effort is made to cultivate a taste for the English Classics, and constant practice in writing is required.

Students . . The limited number of students makes possible an intimate oversight of their individual development.

Digitized by Google

Miss Baldwin's School for Girls Preparatory to Bryn Mawr College. . . .

. . . . BRYN MAWR, PA.

MISS FLORENCE BALDWIN, PRINCIPAL.

Within eight years more than ninety pupils have entered Bryn Mawr College from this school. Diploma given in both General and College-Preparatory Courses. Fine, fire-proof, stone building. 25 acres beautiful grounds. For circular, address the Secretary.

The Dana Hall School, **WELLESLEY, MASS.**

Certificate admits students to Wellesley, Smith, Vassar, Mt. Holyoke, and Cornell. General Course for non-collegians, including advanced Literature, Language, and Science. Special advantages in Art, History of Art, and Music.

MISS HELEN TEMPLE COOKE, Principal.

MRS. HARRIETT E. PAGE, } Associate Principals.

MISS JEANNIE EVANS, }

THE STEVENS SCHOOL.

MRS. J. F. DRIPPS.

211-221 W. Cheltenham Ave., Germantown, Philadelphia, Pa.

Thirteenth Year, 1898-1899.

A college-preparatory, boarding- and day-school. The names of many former students will be found in the Bryn Mawr "Program." Individual consideration is given to each pupil. Careful attention is devoted to health, refinement, and character, together with intellectual development. The situation is peculiarly attractive and convenient. A circular will be mailed on request.

The B. F. Clark Teachers' Agency.

378-388 WABASH AVE., CHICAGO.

COLLEGE

POSITIONS.

Established ten years. References from Harvard, Wesleyan, University of Chicago, Cornell, etc.

We have been very successful in our work with Colleges and Normal Schools, and we invite graduates, students, and specialists to write us.

Send for "OUR PLATFORM."

Three Great Books By DAVID STARR JORDAN

President of Leland Stanford, Jr., University.

Care and Culture of Men.

Containing following table of contents: The Value of Higher Education. The Evolution of the College Curriculum. The Nation's Need of Men. The Care and Culture of Men. The Scholar of the State. The Scholar of the Community. The Higher Education of Women. The Training of the Physician. Law Schools and Lawyers. The Practical Education. Science in the High School. Science and the Colleges. The Procession of Life. The Growth of Man. The Social Order. The Saving of Time. The New University. A Castle in Spain.

Library edition, \$1.50; gift edition, half levant, \$3.50.

The Story of the Innumerable Company, and Other sketches.

Containing an Allegory. The Story of the Innumerable Company. The Story of the Passion. The California of the Padre. The Conquest of Jupiter Pen. The Last of the Puritans. A Knight of the Order of Poets. The Higher Sacrifice, and Bubbles of Saki. This volume contains twenty rare full-page illustrations taken from authentic sources.

Library edition, \$1.25; gift edition, half levant, \$3.50.

Matka and Kotik—An Allegory of the Fur Seal.

Illustrated profusely with drawings and photographs by the Official Photographer of the U. S. Government. MATKA AND KOTIK is new, and in the author's best vein. Dr. Jordan is the authority on seals, and also on fishes, and in this book he gives information about the life and habits of the seal in a fascinating manner.

Library edition, \$1.50; gift edition, half levant, \$3.50.

Special rates to University and School Libraries. Published by

THE WHITAKER & RAY CO., PUBLISHERS, BOOKSELLERS,
and SCHOOL FURNISHERS,

723 Market Street, San Francisco, Cal.

CAMBRIDGE EDITION OF GREAT POETS.

THIS EDITION INCLUDES THE
POETIC AND DRAMATIC WORKS
OF

Longfellow, Holmes, Browning, Tennyson,
Whittier, Lowell, Burns, Milton.

DISTINCTIVE FEATURES OF THIS EDITION:

ACCURACY OF TEXT, CAREFUL BIOGRAPHICAL SKETCHES, ALL NECESSARY NOTES,
INDEXES TO TITLES AND FIRST LINES, LARGE TYPE, OPAQUE PAPER,
HANDSOME LIBRARY BINDING, A FINE PORTRAIT,
AND ENGRAVED TITLE-PAGE.

Each in a single volume. Large Crown Octavo.
Price (except Browning), \$2.00; Browning, \$3.00.

SOLD BY ALL BOOKSELLERS. SENT, POST-PAID, BY

HOUGHTON, MIFFLIN & CO., Boston.

SPECIAL TEXT-BOOKS
FOR
ADVANCED STUDENTS

PUBLISHED BY
J. B. LIPPINCOTT COMPANY
PHILADELPHIA

A CATALOGUE CONTAINING DETAILED
DESCRIPTION WILL BE SUPPLIED UPON
APPLICATION TO THE PUBLISHERS

LIPPINCOTT'S GAZETTEER OF THE WORLD.

NEW EDITION.

REVISED, WITH THE LATEST CENSUS RETURNS.

A Complete Pronouncing Gazetteer or Geographical Dictionary of the World, containing Notices of over 125,000 Places, with recent and authentic information respecting the Countries, Islands, Rivers, Mountains, Cities, Towns, etc., in every portion of the Globe.

ORIGINALLY EDITED BY

JOSEPH THOMAS, M.D., LL.D.

ONE IMPERIAL OCTAVO VOLUME OF NEARLY THREE THOUSAND PAGES.

AMPLIFIED BY A SERIES OF STATISTICAL TABLES SHOWING:

1. The area and aggregate population and population per square mile, according to the most recent census returns or as estimated by the best authorities of the natural and political divisions of the world.
 2. The growth or decline of the principal cities of the world, as represented by the number of their inhabitants at different periods.
 3. The area and population and population per square mile of the different States and Territories of the American Union at the dates of the several census returns, from 1790 to 1890 inclusive.
 4. The area and comparative population of the counties of the several States and Territories in 1880 and 1890, and their population per square mile, according to the census returns of 1890.
 5. The growth or decline of the cities, towns, boroughs, villages, and other minor civil divisions of the States and Territories during the decade from 1870 to 1880, and from 1880 to 1890, as exhibited by the census returns of those years.
-

Sheep Binding, \$8.00, net; Half Russia, \$10.00, net.

Two vols., Sheep, \$10.00; Two vols., Half Russia, \$12.00.

Patent Index, 75 cents additional.

For sale by all Booksellers, or will be sent, free of expense, on receipt of the price by the publishers.

J. B. LIPPINCOTT COMPANY, PHILADELPHIA.

A CRITICAL DICTIONARY

OF ENGLISH LITERATURE AND BRITISH AND
AMERICAN AUTHORS,

Living and Deceased, from the Earliest Accounts to the Latter Half of the Nineteenth Century, containing over Forty-six Thousand Articles (Authors), with Forty Indexes of Subjects. By S. AUSTIN ALLIBONE, LL.D. Complete in Three Volumes. Imperial 8vo. 3140 pages.

A SUPPLEMENT TO ALLIBONE'S

CRITICAL DICTIONARY OF ENGLISH LITERATURE
AND BRITISH AND AMERICAN AUTHORS.

Containing over Thirty-seven Thousand Articles (Authors), and Enumerating over Ninety-three Thousand Titles. By JOHN FOSTER KIRK. Two volumes. Imperial 8vo. Cloth binding, \$15.00; sheep binding, \$17.00. Allibone's Dictionary and Supplement Complete. Five volumes. Cloth, \$37.50; sheep, \$42.50; half Russia, \$50.00; half calf, \$55.00; half morocco, \$55.00.

ALLIBONE'S QUOTATIONS.

By S. AUSTIN ALLIBONE, LL.D. Complete in three volumes. Price per set: In cloth, \$9.00; half Russia, \$12.00. The set contains the following works:

POETICAL QUOTATIONS.

Covering the entire field of British and American Poetry, from Chaucer to Tennyson. With Copious Indexes. Both Authors and Subjects alphabetically arranged.

PROSE QUOTATIONS.

From Socrates to Macaulay. With Indexes. Authors, 544; Subjects, 571; Quotations, 8810.

GREAT AUTHORS OF ALL AGES.

Being Selections from the Prose Works of Eminent Writers from the time of Pericles to the Present Day.

J. B. LIPPINCOTT COMPANY, PHILADELPHIA.

LIPPINCOTT'S PRONOUNCING DICTIONARY OF BIOGRAPHY AND MYTHOLOGY.

Contains Memoirs of the Eminent Persons of all Ages and Countries, and accounts of the various Subjects of the Norse, Hindoo, and Classic Mythologies, with the Pronunciation of their Names in the different Languages in which they occur.

BY JOSEPH THOMAS, M.D., LL D.

Large octavo. Bound in sheep, \$8.00, net; half Russia, \$10.00, net.

It is really a cyclopædia within itself, including every character that has strong claims to our notice, either from public notoriety or lasting celebrity, and from it may be gathered a knowledge of the lives of those who have made the world's history famous.

OPINIONS OF THE PRESS.

"It is absolutely the best performance of its kind in any language. How a journalist, a reference library, or any intelligent reader will be able to get along without this gold-mine is very hard to see. There is nothing like it in any other literature."
—*Boston Beacon*.

"We incline to think that, for a great biographical reference-book for the teacher, student, journalist, and general reader, this work comes nearer to perfection than any other ever published, whether English, French, German, or American."—*New England Journal of Education*.

"We must declare it the best as well as the most comprehensive book of its description, emanating from the pen of one writer."—*New York Nation*.

For sale by all Booksellers, or will be sent, free of expense, on receipt of the price by the Publishers.

J. B. LIPPINCOTT COMPANY, PHILADELPHIA.

READER'S REFERENCE LIBRARY.

15 vols. Crown 8vo. Half morocco, gilt top, in box. Each volume sold separately.

Chambers's Biographical Dictionary.

Uniform with Chambers's Concise Gazetteer. Crown 8vo. Half morocco, \$3.50.

Walsh's Curiosities of Popular Customs,

AND OF RITES, CEREMONIES, OBSERVANCES, AND MISCELLANEOUS ANTIQUITIES.
Half morocco, \$3.50.

Walsh's Handy-Book of Literary Curiosities.

A Collection of the Bric-à-Brac of Literature. \$3.50.

Brewer's Historic Note-Book.

A Dictionary of Historic Terms and Phrases. \$3.50.

The Writer's Handbook.

A General Guide to the Art of Composition and Style. \$2.50.

Brewer's Reader's Handbook

Of Facts, Characters, Plots, and References. \$3.50.

Brewer's Dictionary of Phrase and Fable.

Giving the Derivation, Source, or Origin of about 20,000 Common Phrases, Illusions, and Words that have a Tale to Tell. \$3.50.

Brewer's Dictionary of Miracles.

Imitative, Realistic, and Dogmatic. With Illustrations. \$2.50.

Edwards's Words, Facts, and Phrases.

A Dictionary of Curious, Quaint, and Out-of-the-Way Matters. \$2.50.

Worcester's Comprehensive Dictionary.

Revised, Enlarged, and Profusely Illustrated. \$2.50.

Roget's Thesaurus.

A Treasury of English Words. Classified and Arranged so as to Facilitate the Expression of Ideas and Assist in Literary Composition. \$2.50.

Ancient and Modern Familiar Quotations.

From the Greek, Latin, and Modern Languages. \$2.50.

Chambers's Concise Gazetteer of the World. \$2.50.

Great Truths by Great Authors.

A Dictionary of Aids to Reflections, etc. \$2.50.

Bombaugh's Gleanings for the Curious from the Harvest-Fields of Literature.

A Melange of Excerpts. \$3.50.

J. B. LIPPINCOTT COMPANY, PHILADELPHIA. Google

WORCESTER'S DICTIONARY

**Is the Standard Authority on all Questions of Orthography,
Pronunciation, or Definition,**

and is so recognized by all the colleges of the country, by the principal newspapers and periodicals, and by such leaders of American thought as Phillips Brooks, Edward Everett Hale, George Bancroft, Oliver Wendell Holmes, Lowell, Irving, Marsh, Agassiz, Henry, etc. Leading book-publishers recognize Worcester as the highest authority, and millions of school-books are issued every year with this great work as the standard.

President CHAS. W. ELIOT, of Harvard College, says, "I have always referred to this work as the standard."

WORCESTER'S SCHOOL DICTIONARIES.

Adopted and used in New York City, Philadelphia, Boston, Cambridge, Chicago, St. Louis, Worcester, Lowell, Salem, Washington, and hundreds of cities and towns throughout the United States and Canada. Recently adopted for North Carolina, West Virginia, and Delaware.

WORCESTER'S NEW ACADEMIC DICTIONARY

Is designed especially for the use of the *higher schools and seminaries of learning*, but is well adapted in its scope and range to the needs of families and individuals. *The distinctive feature* of the book is its treatment of *the etymology of words*.

Printed from entirely new plates. 688 pages. 264 illustrations. \$1.50.

WORCESTER'S NEW COMPREHENSIVE DICTIONARY

Contains a full vocabulary of fifty thousand words. The design has been to give the greatest quantity of useful matter in the most condensed form, to guard against *corruptions in writing and speaking the language*, to adapt the work to the use of the *higher schools and seminaries of learning*, and also to make it a convenient manual for families and individuals.

Printed from entirely new plates. 688 pages. 577 illustrations. \$1.40.

Sent by mail to any address on receipt of price.

J. B. LIPPINCOTT COMPANY, PUBLISHERS,

716-720 Filbert St., Philadelphia, Pa.

